SUPPLEMENT.

je Klining Donnal,

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[The MINING JOURNAL is Registered at the General Post Office as a Newspaper, and for Transmission Abroad.]

1958.—Vol. XLIII.]

LONDON, SATURDAY, MARCH 1, 1873.

Original Correspondence.

MINES AND WORKS OF GERMANY-No. IX. STATE IRONWORKS IN SAXONY.

cribed in our last the furnace operations at Marienhütte emer process of conversion into steel as there practised w follow the ingots to their destination. The moulding the Bessemer steel are made of strong cast-iron, about and 12 in, square at the lower end, and 9 in. at the upper and 12 in, square at the lower end, and 9 in, at the upper are open, but during casting the moulds stand on flat plates which, by rapidly abstracting the heat, and thus solidifying portions of molten metal poured in, prevent any escape the crevices. Each casting, box is furnished at the top with which, soon after casting, it is raised a foot or so from the y means of a crane, and then, with a few blows from a the solid ingot drops out, and is allowed to cool. The hyress now so much employed in the largest Bessemer works dis not used here. After being heated again in a reverfurnace, these ingots are run on trolleys to the huge steam-This machine is the leviathan of its kind; next to Krupp's to be the largest in Germany. There are in this country rtwo at Sheffield, and some at the Barrow Hematite Works, comparable to it. The head weighs about 7 tons (English), said to be 350-horse power. The ingot of steel is here commit hardened, being handled by three men with the cusid of tongs swung in chains from a sliding pulley, which ong the front of the hammer, admitting of the workmen he ingot with precision, and turning it into any required. We next followed the compressed and elongated steel barlls. Here it was "boated" down in the ordinary fashion of steel about 2½ in. by 1 in. of a peculiar T-shape. And attention was called to a peculiarity of the manufacture of enhitte rails, which, though not a patent, is not adopted in eneighbouring States of Germany. Having adjourned at twith the good-natured manager to a convenient café for ische, which may be rendered into the equivalent English bitters," we examined and copied the sections of rails, &c., med the inspection. are open, but during casting the moulds stand on flat plates

it with the good-natured manager to a convenient cafe for ische, which may be rendered into the equivalent English bitters," we examined and copied the sections of rails, &c., med the inspection.

eel bars are cut into convenient lengths of some 6 ft. At e time similar lengths of different sorts of iron, rolled in portion of the works, are brought, and these lengths are laid other in the following order; which will be best understood from an inspection of the following section of the pack. In the pack as thus made up the vital point is the decision of the whole. The pack thus arranged is the steel of the whole. The pack thus arranged is heated to incipient welding, and then rolled down into rails of the form shown in the accompanying section. At the points marked a, the better nature of the metal could be distinctly discerned in the fresh-cut section, as elow. The advantages of this process were fully dilated the Bessemer manager. They were chiefly the economy of the strengthening of those parts, a, a, a, to wear; and the greater homogeneity by having the portions of the pack, d, d, g the steel, of best malleable iron. This has been practised for six years at these and is highly thought of in Saxony: 12 are kept employed in heating the packs. Is, when rolled, are cut into suitable by a circular saw whilst hot; 100 tons of ded rails are turned out weekly. These are loaded in the orailway trucks, and sent off principally to the State rail-ther descriptions of rails, wholly or partially of steel, are tured. One novel variety we were much struck with, it de all of steel and reversible, its section much resembling a N. The rails were intended for a tramway.

al of Siemens' gas furnaces were in operation, built in groups or three. The gas generator is four or five yards away from hace, and the inflammable matters are conveyed in iron of 2 ft. diameter, and by means of suitably arranged bridges furnace flue, the flame is made to impinge on the sole of the hearth. In a neighbouring works that we visited, where furnaces ack being tipped into hoppers on the ground floor, from the fuel gradually dropped into the retorts below. The spoke well of these Siemens' furnaces, and especially of informity. These seconds. iformity. There seems to us room for an important im-ent in these arrangements, at all events with some kinds of hat is, we think it would be worth while to fix in the iron and is, we think it would be worth while to fix in the iron conveying the gases from the retorts, an apparatus similar ciple to the chloride of calcium tube used in the laboratory ag gases, which would arrest and retain in combination the given off by the coal. No difficulty would be experienced ying the apparatus, through a door in the tubing, and rethe absorbent when saturated. Many coal measures, both ay and England, are not utilised by the ironworks on account large proportion of sulphur. Indeed, in this works, the professing proportion of the five of the recedes 19 per cent, due mainly alphurous character of the first. rge proportion of sulphur. Indeed, in this works, the particle proportion of sulphur. Indeed, in this works, the particle proportion of the exceeds 19 per cent, due mainly phurous character of the fuel. There is no doubt that in phurous character of the fuel. and prospective coal famine an invention that would erior measures to be consumed, though only in the of gas manufacture, would be a commercial boom

Though steel rails form the chief output at Marienhütte, a large quantity of other iron work is produced. Wrought-iron girders are got up for bridges, &c., to an average quantity of 15 tons per week; and merchant bars, plates, pipes, tanks, and machinery castings, to the extent of about 50 tons per week. They work five days, or 10 turns of 12 hours each, including two hours each turn for meals, which in the daytime are at 8, 12, and 4. The week commences, as in most English forges, on Monday evening. There are 1750 workmen employed here, exclusive of the furnace hands. The wages paid were mostly arranged by the ton, and therefore vary with the skill and industry of the artizan; but for those who received day wages we found they were—for men 2½ gulden, boys ½ to 1½ gulden per day. No women are here employed, except a few (about 40) in the lighter work of the blast furnaces, nor any boys under 14. The State regulations for juvenile labour in Saxony require that all children between the ages of 6 and 14 years shall attend school, or be instructed to the satisfaction of the inspector at home. And from the Government statistics we see there is but a discrepancy of 4 per cent. between the total number of children in the kingdom and the total number returned as actually attending school. In this respect Saxony takes the lead of every State in Europe.

FOREIGN MINING AND METALLURGY.

It appears from official tables published by the Customs administration of the Zollverein that the importation of coal and coke into the States of the German Customs Union amounted in 1871 to 4,790,144 tons, or 1,426,993 tons more than in 1870, and 350,000 tons less than in 1869. Great Britain figures in the imports of 1871 for 3,099,851 tons, of which 2,177,320 tons were introduced by the Baltic ports, and 922,531 tons via Hamburg. Belgium imported 675,569 tons; Austria, 274,749 tons; the Low Countries, 46,697 tons; and Switzerland, 19,307 tons. The importation of coal into the Zollverein, which between 1862 and 1866 averaged only 1,418,671 tons per annum, increased in the period embraced between 1857 and 1871 to an average of 3,553,427 tons per annum. The exports of coal from the Zollverein amounted in 1871 to 7,399,384 tons, or 615,418 tons less than in 1870. This reduction is attributed to the development of German industry, which absorbed in 1871 a much more considerable quantity of coal than in former years. The quantities of coal exported from the Zollverein last year may be summed up as follows:—Austria, 3,016,167 tons; the Low Countries, 2,153,970 tons; France, 1,288,121 tons; Russia, 566,761 tons; Bremen, 217,013 tons; and Switzerland, 41,246 tons. The mines of Prussia participated in these exports for 6,400,000 tons; those of Bavaria for 370,248 tons; those of Saxony for 338,897 tons; and those of the Grand Duchy of Baden, for 140,544 tons. As regards the consumption of coal in the Zollverein it was estimated to amount in 1871 to 55,890,760 tons. 3,099,851 tons, of which 2,177,320 tons were introduced by the Baltic total exceeded the corresponding figures for 1869 by about 6,600,000 tons.

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Pig has been advancing in Belgium, and this circumstance is accepted as an indication of a probable general maintenance of prices in the Belgian iron trade, Refining pig brings 6l. 8s. per ton in the Charleroi basin; this quotation is not universal, but while it was exceptional a few days since it is now rapidly becoming general. Casting pig has been in somewhat less demand in Belgium, although a similar report cannot be made with respect to the French markets; prices are, nevertheless, supported with firmness at 7l. 8s. per ton on an average. Merchants' iron is dealt in at 12l. 16s. per ton; sheets have a decided tendency to exceed their previous quotation of 16l. per ton; plates are well maintained. As regards contracts for rails, opinions are as divergent as prices, and it is very difficult to give a precise quotation. There appears, however, to be a general concurrence of opinion upon one point—that the ensuing season will be a good one. The Liége and Limbourg Railway Company has invited tenders for the sale of old rails; the offers made ranged between 7l. 8s. per ton, proposed by M. Strybos, and 8l. 5s. per ton, proposed by Messrs. Norrington, Pitts, and Co., of London. On these terms the remanufacture of old rails can be carried on upon advantageous conditions. It appears that the imports of iron of various kinds into Belgium in the first eleven months of last year amounted to 138,500 tons, against 83,500 tons in the corresponding period of 1871; November figured in last year's total for 9600 tons, against 4700 tons in November, 1871. The imports of rails into Belgium in the first eleven months of 1871, rose during the same period of 1872 to 265,000 tons. The exports to England increased last year 12,000 tons; those to France, 5000 tons; and those to the United States, 7000 tons; those to France, 5000 tons; and those to the United States, 7000 tons. On the other hand, the exports to the Zollverein fell off 17,000 tons last ye the Zollverein fell off 17,000 tons last year; the deliveries of pig and plates presented a rather sensible augmentation, but as regards rails there was a diminution of 23,000 tons, or thereabouts. The exports to Russia fell off last year 6000 tons, the reduction occurring principally in rough pig and rolled iron. Upon the whole, the results attained last year may be said to have been less brilliant than the Belgian iron trade had a right to expect. The Bonne Espérance and Batterie Collieries Company will pay to-day (Saturday) a second dividend for 1872, or 11. per share.

The French iron trade presents less animation, although the aspect of affairs is still favourable. Prices remain generally unaltered; coke-made iron stands at 134. 12s. to 141. per ton. The fair just held at Besançon presented comparatively little activity, confidence not being generally felt as to the future, while opinions varied a good deal as to the probable future course of prices. The imports of pig-

deal as to the probable future course of prices. The imports of pigiron and castings into France in 1872 amounted to 133,000 tons, against 116,000 tons in 1871. The augmentation observable occurred principally in the imports made with payment of duty. As regards iron and plates, the results disclosed by the official statistics of last year are analogous, the total imports having risen to 45,000 tons in 1872, as compared with 26,000 tons in 1871. The imports of engines and machinery paying duty rose last year to 42,000 tons, as compared with 23,000 tons in the corresponding period of 1871. Altogether, the total augmentation in the importation of iron of various kinds into France last year amounted to about 55,000 tons. The exports of iron from France increased to a much more considerable extent deal as to the probable future course of prices.

last year, having been 288,000 tons in 1872, against 150,000 tons in 1871. The largest proportion of the increase observable in last year's figures occurred in the direct exports, which amounted last year to 177,000 tons, against 96,000 tons in 1871. These figures show a great increase in the activity of the French iron trade last year, and a very large balance also in favour of the exports.

The greatest firmness in prices may be reported as received the

ifigures occurred in the direct exports, which amounted last year to 177,000 tons, against 96,000 tons in 1871. These figures show a great increase in the activity of the French iron trade last year, and a very large balance also in favour of the exports.

The greatest firmness in prices may be reported as regards the Belgian coal basins, in which there are scarcely any stocks. The insufficient production of coal in Belgium has, indeed, induced the proprietors of sundry local works to endeavour to obtain supplies of coal abroad. It is to the Ruhr basin that orders of this kind are being sent. Contracts have just been let for the supply of coal to the Belgian State Railways during April, May, and June, 1873. The contracts given out appear to have been let at an average of 2s. 34d. per ton. The exports of coal from Belgium in November, 1872, amounted to 353,383 tons, the aggregate exports for the eleven months ending Nov. 30 last year having been 4,264,596 tons. This total showed an increase of 1,283,912 tons, as compared with the corresponding period of 1870, and one of 933,340 tons, as compared with the corresponding period of 1871. The exports of coke from Belgium in November amounted to 57,555 tons, the deliveries being about equally divided between France and the Zollverein. The imports of coal into Belgium in November amounted to 32,360 tons, while those of coke were 968 tons.

In the French Coal Trade prices have presented little change, although domestic qualities have shown some little weakness. An emigration which has set in of Belgian coalminers to German brick-yards has occasioned some apprehensions, which are reflected in an upward tendency in prices in the Nord and the Pa-de-Calais. The intelligence received from the basin of the Loire is generally favourable. M. Des Rotours and some other members of the French National Assembly have proposed that an official enquiry shall be made into the state of French coal mining industry, so that the production may be developed in proportion to the requirements

COSTA RICA.

SIR,-My object was to visit the Republic of Costa Rica, and I embarked at Panama, in one of the Panama Railroad Company's steamers for the Port of Puntarenas. These steamers are very comfortable, and from 2000 to 2500 tons burthen, and sail every ten days. The steamer runs along the coast, which is nearly all the time visible, and you pass a great many islands. The scenery is most beautiful, the sea generally calm, and is rightly called the Pacific Ocean. The

the sea generally calm, and is rightly called the racine Ocean. The heat on this trip is very great.

Puntarenas is about 480 miles distant from Panama, and is reached in about 48 to 52 hours. In former times the landing was very disagreeable, and rather dangerous, on account of a sand bar near the entrance of the harbour, where, when the water was low, the breakers ran very high, and these had to be passed with some difficulty, for many times the boats have been swamped, and some of the pasengers and even last. Now however a wharf has been huilt which many times the boats have been swamped, and some of the pasengers and crew lost. Now, however, a wharf has been built, which avoids going round the point, at a saving of four miles. Puntarenas is situated on a peninsula, and is really what its name expresses—a sandy point. There are a few good houses and stores in the place belonging to the merchants, but most of the dwellings of the inhabitants are merely huts made of wood and cane.

An old Spaniard keeps the hotel there, which, as is usual in most Spanish places, is very dirty, but the old fellow sets an excellent table, and always treats his guests with oysters, which are veryfine here. He serves them up raw, fried, and stewed, and they are really a great treat. These oysters grow on trees, as most of the oysters in

a great treat. These oysters grow on trees, as most of the oysters in the West Indies and in Central American ports do. The mangrove trees grow near the water's edge, their branches touch the sea, and the oysters cling to these branches, which the fishermen cut off, and then bring them branches and all for sale to the port, where they are sold for a few chillings por thousand.

sold for a few shillings per thousand.

Puntarenas during the coffee season is a very busy place, as daily some 200 to 300 carts laden with coffee arrive from the interior, and

return with the imported goods.

As soon as we had procured our mules we prepared to continue our trip to the capital, San José, distant about 80 miles from the port. The ride from Puntarenas to the next resting place, Esparza, port. The ride from Puntarenas to the next resting place, Esparza, takes about four hours, and is a very pleasant one, through a dense forest of magnificent large trees, and the tropical vegetation is most splendid and beautiful. After passing the River Barrancas you

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commence ascending the mountain till you reach the village of Esparza, situate on a kind of plateau, about 1000 ft. above the level of the sea. The next stopping place is the village of San Mateo, 18 or 20 miles further on. The scenery on the whole road is magnifior 20 miles further on.

or 20 miles further on. The scenery on the whole road is magnificent, and such as is only seen in tropical climates.

Leaving San Mateo you commence ascending the Aguacate Mountain, a mountain rich beyond description in gold and silver, which are buried in the bowels of the earth, and I believe that there is no are buried in the bowels of the earth, and I believe that there is no country in the world where the gold mines are equal to these in permanency and richness of the lodes, which are all well defined here, as in those of Circulitas. Ascending this mountain I found the road macadamised with gold and silver bearing quartz, which the labourers had taken from the sides of the meuntain, so that you can really say that the roads were paved with gold. Most of the rich families in San José owe their riches to the mines of Circulitas and those in the Aguacate Mountain. But let me remark here that if the ores had been worked in a scientific manner the result would not have been less than a production of 40 millions of dollars from these mines has given the extraordinary result by assay miners lose at least three-fourths of the gold the ores contain. The quartz from these mines has given the extraordinary result by assay of 4000% to 5000% per ton, and when the mines were worked by the former proprietors they often found ores of such richness. A specimen of this ore 2 cubic feet large is now deposited in the British Museum, where it can be seen, and gave over 4000% per ton by assay.

The Costa Rica people, however, are mostly agriculturists and merchants, and also not understand which of minings, and as soon as it has

chants, and do not understand much of mining; and as soon as it be chants, and do not understand much of mining; and as soon as it became necessary to employ machinery or make tunnels the work was generally abandoned. The lodes in the Ciruelta district are all well defined, and generally from 3 to 6 ft. in width, and there is no spot in these mines where the ores do not yield from 12l. to 16l. per ton. My opinion is that now these rich mines are to be worked by an English company—the Costa Rica Gold Mining Company—the results that will be obtained will not only make that company one of the sighest in the world but vill even extensible the minure of some the richest in the world, but will even astonish the miners of some of the richest gold diggings in Australia and California. The view from the Aguacate Mountain is one of the finest you can

have, as you see the Pacific Ocean at a distance, can observe the vessels entering the port of Puntarenas, and see the different villages at the foot of the mountain. The mountain is about 4000 ft. high, and the road from Puntarenas is an ascending and decending one, with a gradual ascent, and it seems as if the persons who planned this road have tried to find the steepest possible ascent they could, as there is no doubt that a shorter and better road might

have been made to the capital. The next place you come to is called Atenas, another small vil-lage, and from here you again go ascending and descending till you reach the planes of San José, in the neighbourhood of which you find a great many coffee estates, which, when inflower, scent the whole air with a most delicious perfume. At last San José is reached, a great many coffee estates, which, which say José is reached air with a most delicious perfume. At last San José is reached about which I shall talk in a later communication.

TRAVELLER.

INVESTMENTS IN WESTERN AMERICA.

SIR,-It would be well that English capitalists should form a cor SIR,—It would be well that English capitalists should form a correct estimate of the difficulty of making good investments in Californian mines. In San Francisco there are a great number of very speculative capitalists who are ready to take up promising enterprises. These gentlemen are in close friendship with the most experienced experts, who do not fail to bring under their notice the best properties on sale. It is difficult, if not impossible, to pay a first-rate judge of mining property for his report in cash, and it is far more commonly arranged that the expert takes his remuneration partly, if not altogether, in prospective results. When a mine is sold in England the expert loses this advantage, and it is pretty certain that the very best properties are never presented to the England certain that the very best properties are never presented to the English market. It may be laid down that whenever a Californian mine on the San Francisco Stock Exchange is proposed to be transferred there is something wrong about it. This remark also applies, though

there is something wrong about it. This remark also applies, though in a less degree, to private associations, for such associations rarely, if ever, fail from want of capital, if the mine be really good, though they do fail occasionally from want of harmony amongst the partners. Nor is it easy to rely upon the reports of foreign experts, however able or honest they may be. The reports of such men are, no doubt, valuable, but it appears to me they have rarely embraced a description of the market value of the properties reported on. They generally contain a full description of the property, the amount of ore in sight, the estimated output, cost of working, &c., but these alone give a very delusive idea of what the property is worth. People here have no conception whatever of what cash will buy in California or Utah, or they would never consent to the formation of California or Utah, or they would never consent to the formation of mining companies with such a huge amount of capital as the Emma for example: 20,000% will really buy a very handsome mine, and I for example: 20,000. will really buy a very handsome mine, and I scarcely believe there is a really good purchasable mine which could not be bought for 50,000. At this moment so scarce is capital in Salt Lake that people are ready to sell anything they have. But it may be well to quote a case or two of failure from the neglect of enquiry into naarket value. I was informed by the original proprietor of Mineral Hill that he sold it shortly before it was brought to England for 16,000. He said it was a very pretty looking property, but that he sold it because he had no faith in its permanence. He is one of the best judges of a mine on the Pacific Coast, and I can scarcely think he would have sold it for less than the market value. I do not know all the circumstances connected with that unfortunate speculation, but I venture to ask whether any commonunfortunate speculation, but I venture to ask whether any common-sense man of business would not have enquired into the history of the property, and have obtained an opinion, which I was assured was as open to him as to me? Again, a gentleman in Virginia City told me that he had the opportunity of buying the celebrated Eberhardt for about 8000l.; and if similar enquiries were made into the history of many other mines it would be found that dollars have been converted into pounds as the property passes from native into English bands.

Notwiths anding these circumstances, users to be a left for English investment. The capital of California rests in but a few hands, and is small indeed as compared with what is wanted for the development of the country. There are millions of acres of auriferous gravel, and nothing is more certain than the return of hydraulic gold mines, yet no one in California thinks of investing unless he can calculate on 1½ per cent. a month, and the return of all his capital in four years. Much less than this would probably all his capital in four years. is. otwiths anding these circumstances, there is yet a wide margin for English investment. The capital of California rests in but a an his capital satisfies a satisfy an English investor, and he has no occasion to consultate perts on a matter patent to any man of common sense. As regards quartz mines, the case is different. No one can tell what they are going to cost before any return is gained, and the Californians have failed quite as often as any other people. This is only what might have been expected, for the whole nation is imbued with the gambling spirit. They earn money fast, and they invest without consideration. It was a remarkable fact that of 123 mines on the San Francisco market, all professing to pay monthly dividends, there was only one mine which actually paid a dividend in October last, when I was there. That mine was the celebrated Raymond and Ely, in Picale, which raid maps than 120 GOM in the course of last rese. in Pioche, which paid more than 120,000% in the course of last year.

As regards silver mines, those in Nevada are scarcely likely to pay
English investors. They depend for their success chiefly on judi-As regards silver mines, the depend for their success chiefly on judicious and economical management. Even on the Constock lode the value of the ore varies so much that it becomes a question of the nicest judgment whether it should be raised to the surface or left behind untouched. The position of the Utah mines is, in my opinion, hind untouched the mines of Nevada and California. There are fewer far better than the mines of Nevada and California. There are fewer capitalists, and more mines. In California and Nevada the people were first miners and agriculture has been grafted on mining operations. But in Utah the first settlers were agriculturists, and they still form the majority. This gives the miners the great advantage of a cheap supply of all the necessaries of life. In some districts in Virginia City corn, beef, mutton, wood—and, indeed, nearly every article of first necessity—has to be imported from a distance, but in Utah all are glose at hand and shown My first conclusion is that there is na safety whatever in purchas-

ing mines on the reports of experts only, and that it is of the highest importance that the price asked for any mine should be compared

with what it would command in the market close at hand. This is not by any means the only point of consequence, but the others must be left until another week. TRAVELLER.

MINING MACHINERY-THE PRIZE ESSAY.

SIR.—I understand the Essay on best Mining Machinery, for which a premium of 20l. had been offered, was in the hands of the Editor of the Mining Journal, but the announcement of the successful competitor coming from one of your special correspondents would indicate that it is confined to a privileged circle in Cornwall—may be the Miners' Association; for if the result is so extensively known through Cornwall may not the report, hints, and floating rumours through Cornwall may not the report, hints, and floating rumours, always rife in that part of the country, have materially assisted the gentlemen in coming to a clearly-defined notion of what would answer the purpose, or fit their Lecturer's views (I believe one of the judges is the lecturer or secretary of the Miners' Association). Ido not suggest that the persons named in your correspondent's note are not the proper persons to receive the award, but I think it bad taste (to say the least) in allowing the result of their decision to be made public through any channel but by a note or paragraph from the Editor, whose sole charge and by whom the money is to be paid; or a note from the judges, commenting on and encouraging any other that may have been worth a notice or a remark. I have been watchthat may have been worth a notice or a remark. I have been watch-ing for the result of this competition, which will, no doubt, awaken much discussion, and good may come out of it, but if your corre-spondent has its management, I think he should have forwarded the spondent has its management, I think he should have forwarded the successful essay for publication, with the encomiums on his friends. If my recollection serves me, it was stated the whole of the essays would be put in your hands, and what was fitting for your columns would be inserted for public criticism.

May I ask, through your valuable Journal—1. Have the essays been all received by you?—2. Will more than the one successful essay find a place in your columns?—3. Are we to look for further comments on the rejected essays from the judges or your Cornish correspondent?—4. Would the essays be returned if not noticed in

Lancashire, Feb. 26.

[We had received the Essay, but the publication was deferred [We had received the Essay, but the publication was deferred until this week, owing to the great pressure upon our space; and with regard to our Cornish Correspondent having had anything to do with the award of the premium, or having exercised any influence in the matter, we have no hesitation in holding him blameless. The notice in his letter was unquestionably as a mere matter of news, and, therefore, properly inserted. We publish this letter assevidence of the feeling which may exist where everything has been most fair and bona fide. The whole of the essays will be placed in our hands, and we shall at least make selections from each.]

ECONOMISING COAL IN STEAM-BOILERS.

Str,-To all who are interested in mines, or manufactures where

soil is largely used, the question of its present cost is of paramount importance; and if you will allow me to address the public through the *Mining Journal* a saving may result.

I am a West Country brewer, and a shareholder in many mines, both progressive and dividend, and have observed that the present high prices of coal in London has had the effect of lowering quotations in Cornish and Welsh mines. I am glad to say that prices for in Cornish and Welsh mines. I am glad to say that prices for Welsh small steam coal have not advanced within the last two months; in fact, I now pay 18s. per ton, delivered in Somerset, whereas 23s. was at one time the price for the same quality. This kind of coal is mostly used in Cornish boilers, which work the pumping engines, and may be said to be almost double the price of for-

This advance has induced me to look about for means of economising as far as possible, and I am able to say I have been successful in obtaining a substance with which to cover my boilers, and thus save a considerable percentage upon my coal bill. I can now lamp my fires at 9 p.m., when steam is about 30 lbs, pressure, and upon resuming work at 6 A.M. the loss of steam is less that 5 lbs. In lead, it often happens that no loss is apparent. Its cost is 7 lbs. In lead, it often happens that no loss is apparent. Its cost is 7 lbs. Ton, and 4 cwt. has proved enough to cover a boiler 15 ft. by 5 ft. 3 in.,

so that price is no great objection to its general use.

If any manager wishes to try its effect I should be pleased to inform him of all particulars if he thinks it worth while to address me at your office. I would willingly give the manufacturer's name and address, only it would look too much like an unpaid for ad-vertisement. I shall, however, take care to acquaint the managers and address, only it would look too much like an unpaid for advertisement. I shall, however, take care to acquaint the managers with whom I am connected with my experience, and if they are anxious to do their best for their long-suffering shareholders I am sure they will at once endeavour to save coal when the manner of so doing is plainly shown.

I can now keep my hand upon my boiler when steam is at 40 lbs. pressure, which fact is sufficient to show the astonishing non-con-lucting powers of the substance, and must convince the least astute of the saving effected.

I have no interest in its sale, but am an earnest opponent of waste any shape or form, especially in the matter of coal.

PURIFICATION OF IRON.

Feb. 24

Sir,—The present exorbitant price of coal renders it more than ver desirable that the utmost efforts should be made to economise fuel in the manufacture of iron, and the process recently invented by Mr. David Joy, of Saltburn-by-the-Sea, appears to me to be de-cidedly a step in the right direction, for the effect will be (at least I believe so) to obtain such a high quality of pig metal that the cost of its subsequent manipulation will be materially reduced, and when

the invention is used in the puddling furnace I should think a very fine quality of metal would result.

The efficiency of the Giffard injector for feeding boilers is already well known, and Mr. Joy proposes to employ a similar form of instrument for removing the slag from molten metal; his invention consists in drawing or carrying away the contents of the furnace, or a part of them by an induced or direct current or blast and in propart of them, by an induced or direct current or blast, and in procing the induced current he employs a simple form of injector, ich is placed over or near the runner of alag or metal in such a position as to receive it as it runs from the furnace, and he employs direct current when it is required to remove slag only from the urnace, using guide plates or pipes around the current to guide or effect the slag as required.

Now, it appears to me that by regulating the length of time during which the injector is kept in action it would be possible to vary the character of the resulting metal very considerably, and by first using the injector to blow away the slag and then to blow the metal itself, the operator might obtain almost the same advantage as in the Bessemer process, and produce all qualities of metal from the best steely iron to that closely approximating wrought-iron. Of course, it would be necessary to know the character of the ore operated upon

within reasonable limits, but this, at present, is not difficult

DYNAMITE-MCKEAN'S ROCK-DRILL.

SIR,—I hasten to endorse every word contained in the letter of your correspondent, "A Practical Man," relative to Dynamite, in the Supplement to last week's Journal. My only regret is that he did not sign his name to his most thoroughly practical and sensible letter, and I beg you will put my name and address in full at the close of this. Anything more stupid than the Metalliferous Mines Regulation Bill and the Nitroglycerine Act cannot possibly be conceived, barring the obstinate stupidity of the railway companies in refusing the centre of the proposition. refusing to carry Dynamite. I have had within the last few days to send my coachman with a spring cart from my place, 10 miles out of Richmond, all the way to Newcastle, by the road, to fetch 5 cwts. of Dynamite—that is, six days' work—because the North Eastern Railway refuse to take it to Richmond! I have already spoken to several members of Parliament about it, and hope ere long to raise such a storm about the ears of these new tyrants that they will be compelled to rescind their absurd regulations. It is a scandalous shame that important industries should thus be impeded by idiotic legislation and tyrannical railway directors.

I avail myself of this opportunity to state that, "as a practical

miner," I can youch that the McKean rock-drill has not been specified by another drill which arrogates to itself the victory orea other drills weekly in your columns. I have used the Meta rock-drill for three years, and do not hesitate to say that in humble opinion, it will beat all others clean out of the field beat long; not that it has done so, but it will do it.

To all those the determine the problem of the field beat all others clean out of the field beat all others clean out of the field beat all others. hamble opinion, it will consider that it has done so, but it will do it. To all those belong; not that it has done so, but it will do it. To all those belong levels to drive, and plenty of water-power to work air-compressor, I can with the utmost confidence recommended and Co.'s drill.

GEO. W.M. DENNS, But. Workshire. Feb. 25. Draycott Hall, Richmond, Yorkshire, Feb. 25.

THE LAW OF METALLIC DEPOSITS.

SIR,—What is in a name? Enormous sums of money have ost in exploring districts in search of supposed lodes. In Augh the Burra Burra Mine was a carbona and not a regular lode, was the deposit of copper in the Ecton Mountain, in Stafford the deposit of copper found originally in the two mines Island of Anglesey, although enormous explorations from time having been made without any practical succe Llangynog Mine, in Montgomeryshire, was a like di Devon Consols deposits may be termed regular lodes, extend much beyond two miles in length of a productive The Great Wheal Vor lodes were never found to be proport two miles in length, neither could they be traced, beyond that distance. The East Wheal Rose Lead Minuch like deposit, and West Chiverton is much the sa form junctions in certain basins generally, and make la Such was the case with vast deposits of minerals d various basins at the base of hills in Cornwall. All expl prove that when lodes enter a change of strata they g up into a number of branches, and so end the prod these veins. The great deposits of copper discoverel; ago in the Santiago and Cobre Mines, in the Island not extend beyond two miles in length. The Great and Alfred Consols Mines, in Cornwall, yielded large copper ore, being one and the same lode for about copper ore, being one and the same lode for about th. The greatest deposits of tin, copper, and le found in basins generally, the bearing lodes bein other. The hematite iron ore lodes in Cornwall each other. of a more masterly description of veins, and in certain dis-tinue for miles in length; but the vast deposits of iron or the limestone formation in Lancashire, Cumberland, and tricts in the North of England, are generally found in be

or so termed pockets.

The greatest deposits of coal are generally found in basis but not so vertical as metallic veins; these deposits are wis tersected by faults, and at the intersections throw or heave the second of the sec either up or down, at times for fathoms, either one other, these faults no doubt, geologically speaking, act is courses in metallic basins or districts. Coming events cast their shadows before. Gossan near the surface in lead lodes is one of the strongest indications of these found underneath, but tin is the exception. The grainerals found in hills are the evidence of some v consequently very uncertain as to extent either in lenth Carbonas of minerals found in basins, or valleys, at the foof hills, may be considered very treacherous and uncertain and these deposits are not unfrequently found in the siegg. The centre of all great deposits are found at the vition of the so-called vein, and when it begins to narrow of the deposit is passed in nine cases out of ten. Such, rience, has been found to be Nature's laws; but the public with the notion that where much is found much more may that is the speculative part of the business, and just lik after spilt milk.—Feb. 26.

A. B.

MINING IN LLANIDLOES-PEN-Y-CLYN

SIR,—In a recent visit to Llanidloes I inspected some dia mines in that neighbourhood, one of which was Pen-y-Clyn, simple tween the two now leading mines in the district—Van and a Consols—and has the same lode running through the entirest therefore, as regards its position, it needs no remarks from malmay, however, say it was the success that attended the working Pen-y-Clyn about 20 years ago that induced the late Mr. Jose Howell to take up the Van sett. The operations at Pen-y-Clyn is were on the top of the hill, where the run of ore ground cropped to the surface. The present company are working the east partitle sett, nearer the Van, where they have virgin ground push of 400 fathoms in length on the course of the lode. A shaftis been sunk 12 fathoms below the adit level (which at this point about 17½ fathoms deep), and is now on the north, or hard part the lode proved so rich to the east and west of them. Small sims or leaders of ore are to be seen in the shaft all the way down bein the adit, varying from ½ in. to 2 in. in thickness, and in some gas they have opened out into bunches of solid ore. Many tons in they have opened out into bunches of solid ore. Many tons in the present time a solid branch of ore on the north wall from 35 6 in. wide, and there is every probability of it increasing as septice of the course of the lock of the course of the lock of its increasing as septice attained. SIR,-In a recent visit to Llanidloes I inspected som 6 in. wide, and there is every probability of it increasing as

Is attained.

Had this mine been in the market instead of private bands should see it quoted at from 50,000l. to 60,000l. The proprietors to be congratulated for their perseverance, there being not the doubt that in less than six months the returns of ore will more meet the expenditure, when the shareholders will be handsom. rewarded for their patience and outlay.

THE DELABOLE SLATE DISTRICT, CORNWALL

SIR,-Except the agricultural productions of this district. and other slates may be regarded as the staple produce, a far-famed quarry, situate in the parish of St. Teath, wrought for centuries; but never so extensively as at it time. The excavation is of enormous horizontal magnitu about 350 ft. deep; the waste pit and debris occupies about Delabole is the name of the land in which the quarry is is the property of the company, Messrs. John Allen and Mr. Allen is the owner of the paper manufactory at Lybrigentleman distinguished for virtues, as well as opulence.

The present company took a lease of the property about 3

ago, and purchased the entire freehold estate about 20 ye ago, and purchased the entire treehold estate about 45,000%. The quarry is the largest in England, and the of the slate is good. There are about 500 persons employed ing and dressing the slates for all the purposes to which sleplied. The resident manager is Mr. Wm. R. Roberts; man rector, Mr. Allen. The sub-agents and clerks are numero quarry was worked previously to the present company by Granger and Trickett, and Mr. J. R. Avery (deceased). named gentleman said that he made an annual profit out 5000!. The machinery employed is considerable. There steam-engines used in lifting the slate to the surface, one engine sawing and planing flags, one for cutting slate, and turning lathes, besides several steam-cranes. Ther wheel, 40 ft. diameter, drawing water, and another. There is wheel, 49 ft. dameter, drawing water, and another, or doing like work. The old pit is called "Clarke's Hole," fro circumstance of the late Dr. Adam Clarke's preaching there was in the Camelford Wesleyan circuit. Another part of the guarry was called the "Grove Quarry," from its being situated grove, a few trees of which still remain, and which I saw the "beautiful to the saw that Another part of the quarry was called "Lease work," had leased to a party of workmen a long while ago. Another called the "Ash-tree Pit," from there being a very large a the boundary fence contiguous; and another part was called a "Landwork Quarry." which is the northern extremity of the great excavation. This part is remarkable, because the landslip who occurred there on April 21, 1869, which killed 15 persons, one whom (a famale) is still housely and the still the control of the contr whom (a female) is still buried under the rubbish. The slip was height 150 ft., in length about 400 ft., and in width at the top sent 150 ft. I am informed by a quarry manager that on five sent days (not successive days) thirty men and one woman (all of what he knew) were killed in this quarry. He knew the names of 18

rsons who have lost their lives in the quarry within the last years. The villages of Pengelly and Medrose have arisen from a quarry labour. A Wesleyan Chapel and a United Methodist Free equarry labour. A Wesleyan Chapel and a United Methodist Free are situate in Pengelly, and a Bible Christian Chapel in Medurch are situate in Pengelly, and a Bible Christian Chapel in Medurch are situate in Pengelly, and a Bible Christian Chapel in Medurch are situate in Pengelly, and a Bible Christian instruction from ministerial labour. I am pleased to find that Christian ity prevails amongst the whole of the societies. They do not fall out by the Way.

The Prince of Wales Quarry is situate in and includes the whole Frewarmell Downs, in the parish of Tintagel. The minerals and stone belong the Prince of Wales. A lease has been granted to Sir F. M. Williams, Bart, the Prince of Wales. A lease has been granted to Sir F. M. Williams, Bart, with its of the very best quality, is found about 40 ft. from the surface, where, as the is of the very best quality, is found about 40 ft. from the surface, where, as the is of the Delabole Quarry, the good slate is not found within 150 ft. on the surface. This quarry was worked for a short time by a Mr. Gill, who is to have lived on a scale too large, and, therefore, he falled, when the lantit of his quarry was worked for a short time by a Mr. Gill, who is to have lived on a scale too large, and, therefore, he falled, when the lantit of his part of the Delabole, alias Bowithick Quarry, lies at the southern side he Prince of Wales, and yields slate of the same quality. Manager, Capt. Geo. and the property of the Prince of Wales, and yields slate of the same quality. Manager, Capt. Geo. and the property of the Prince of Wales, and yields slate of the same quality. Manager, Capt. Geo. and the property of the prince of Wales, and yields slate of the same quality. Manager, Capt. Geo. and the property of the prince of Wales, and yields slate of the same quality. Manager, Capt. Geo. and the property

hy Slate Quarry, in Lanteglos, is now idle, but is likely to be

yel.

It is a considered to the construction of the construction o

on a tour through Cornwall, I thought the above few facts eptable to your readers. velford, Feb. 25.

ON THE LOSS OF TIN.

ON THE LOSS OF TIN.

Sir.—Since writing my foregoing letter, showing that fine and it tin can be retained by long continuous frames, I met a man in which informed me he had been staying in the neighbourhood liskeard a short time on a visit, and one day he had occasion to be a river, when he saw men in different places putting in stops bar or catch stuff which was washing down the river. On enquiry to its use, he was informed that a large stamps was erected above, ich was sending down tin in sufficient quantity to warrant this ric. I will here say I have not seen it, I only got it from informing it in the first property of the same and shows that mines above the Red River are not the only ones sending tin to. This has given room to surmise that were I to take into actuall the tin washed out of the mines in the two western couns, and sent down to the squatters and to sea, I might set it down nearly a quarter of a million sterling. Surely there must be suffination on the barren hills above to use means to retain the matty of this now lost tin; if not I suggest to these mine owners yof this now lost tin; if not I suggest to these mine owners ke agrant of the river, and erect frames, until they meet St. nain rivers. This must surely catch a large portion of the tingent down

w sent down.

I have also fallen in with a man who was a shareholder in a mine bevon, who said the mine was not worked by them to a profit. was abandoned, after which it was found that 20 per cent. of the raised was caught by the squatters in the river below. If these orts are correct it shows that the working of a tin mine can only compared to a stall upset in a market place, which causes a generatula. The company of these the large, the same land directions are considered. cramble. The company catches the large, the small and dirty ions go to the street boys.

N. ENNOR.

N. Hyde-street, New Cross, Feb. 22.

MR. N. ENNOR ON TIN STAMPING AND DRESSING.

MR. N. ENNOR ON TIN STAMPING AND DRESSING.

Sin,—When Mr. Ennor broke out on the subject of tin-dressing he peared to have been pregnant with very big ideas—one in partular, that it was a very easy matter to prevent the tin from espining from the mines and washing down the adjacent rivers. He since written a great deal on the subject, and with what effect as alone will reveal. His embarrassment in dealing with it is filliciently evidenced by the zig-zag way he has proceeded; he has en forwards and backwards, affirming, qualifying, and recapituding, under the mantle of absolute exclusiveness—for it will not forgotten that he imperiously assumed the sole right of reviewing sown articles—and what does it all amount to? Why, simply this: at smelters must agree to buy tin that is not tin—that is to say, eymust buy "whits" instead of tin, and pay for them in proportion the current value of black tin—nay, they must buy sand contained only a few hundred weights of tin to the ton of stuff, for the mour of his remarks leads to this. He says the stuff must not be imped so fine for the sole purpose of preventing the loss of tin by formation of slimes, and I cannot conceive how alimes can be evented from accruing if the stuff is subjected to anything more an a gentle crushing crumbling mode of pulverisation. He treats esubject on the assumption that the tin from our deep Cornish ines is rough grained, and contained in a friable matrix, so that it ally need only to be subjected to a sort of crushing process in order separate tin intact from the gangue.

such were the case, how simple the remedy, and how inexcus-culpable our leading mining managers must be, as well as all s—captains and tin-dressers connected with Cornish mines is—captains and tin-dressers connected with Cornish mines? ould seem that in proportion to the increase of experience had the accumulation of ignorance. How came tin to be stamped to at first, if it was not economical to do so? That is, if it did do? It costs more than the mines, how came it to be reto? It costs more to stamp the oresfine than it does to stamp rough; and stamping them fine is, as a matter of course, at-lawling reater liability to loss than rough stamping would be, and the stamping would be and the stamping would be a stamping would be. ed the tin could be separated and saved in that condition. hen, it may be asked, led from time to time to finer stamp-Why the impregnable facts—first, that more tin can be saved

That we impregnable lacts—first, that more un can be saved that way; and second, that the smelters gave better prices in operion for high per centage than for low per centage ores. That Mr. Ennor has ended in a very different way from that in hich he began must be evident to all who have read his letters; hich he began must be evident to all who have read his letters; al, though he still assumes to have given the puplic a great deal valuable information on the subject. I think the practical memers thereof will be at a loss to perceive what it is. He has certainly made all his pretended improvements to hinge on an improbility—the smelters giving as much proportionally for poor tin rea as they do for good, added to the presumption that more tin tould be saved by rougher stamping. If he can succeed in inducing the smelters to do what he wishes he will deserve largely at the ands of the miner, but of that there is not the shadow of a probability. It seems strange, after the manner in which he has handled he subject, that he should dispose of it in so novel a way—virons he has imposed amounts to that. It will be remembered his aving demurred to any strictures on his remarks en passant, and ow he says he will discuss the subject with practicals of his own proval. This seems to claim a wide latitude of indulgence, and to lake especial care to securely fortify an otherwise easily vulnerable ress an opinion on this guihiect but there where he is the strict of the subject with practical so the continuous continuo sition. According to his assumptions none are qualified to ex-ess an opinion on this subject but those whom he pleases to admit good practicals, engaged in mining and dressing contaminated

tin ore; consequently, nothing remains to the generality of your readers but the alternative of writing incog., or exposing themselves to merciless and unmitigated snubbery.

to merciless and unmitigated snubbery.

It is certainly surprisingly magnanimous to broadly challenge all men to the discussion of a question, with the proviso made prominent that all may be accepted at the option of the challenger. If anything more preposterously exclusive and one-sided than this could be resorted to for the purpose of self-glorification, it might be worth exhibiting for the very novelty. But, probaby, your astute correspondent himself could not exceed it, with all his cunning, if he were not so far advanced in life, as he says he is, he would not live long enough to see his suggestions carried into effect. At least, such is the opinion of a MINER.

PRACTICAL MINING-WINDING AND CRUSHING.

PRACTICAL MINING—WINDING AND CRUSHING.

Sire,—I have now, as far as I know, done with making experiments in stamping machinery; I believe I have made my stamps as perfect as they can be, and will always be ready to show them at work, so that parties can judge for themselves.

While writing, there is another machine I wish to draw your attention to, and that is one for raising ore and crushing it at the same time. It is a very great object at most mines when sinking a shaft, whether horse or other power is used, that the shaft which drives the crushers should always go in one direction, while the bucket is allowed to descend and ascend without interfering with the rolls. This is done by simply having a sliding frame that moves a short distance backwards and forwards to reverse the drum; in this way no time is lost, for as the ore comes up it is crushed ready for dressing at once, and at a cheap rate.

There is still another very important plan I should like to see

ing at once, and at a cheap rate.

There is still another very important plan I should like to see carried out; and that is instead of flat rods, as they are called, to convey power from one point to another, why not employ a pipe; they could then put it under the surface out of the way, and do the work with less power, and get rid of pulleys, joints, and no end of useless expense. I hope to see some young enterprising engineer take this plan up, and show to the world how to make the atmosphere obedient to his call. Anyone that will set about it shall have my assistance with pleasure.

J. WALKER J. WALKER.

y assistance with pleasure. 12, James-street, Feb. 25.

TIN DRESSING-THE RED RIVER.

SIR,—It is deplorable to see that your East Cornwall expert is already played out, and what makes it all the more to be regretted arready played out, and what makes it all the more to be regretted is the fact that, after all his trouble and painstaking, what he so fondly aimed at as a successful paving of his way to fame has ended up in a complete stick in the mire. I never recommended bottling up the tailings, but would allow the water to escape as freely as now, at the same time retain the tinstuff sufficiently long to enable the dresser to rid it of the tin that is so successfully gained by the squatters. The tailings when useless I would consign to the same accent that is at present employed in transporting valuable one to squatters. The tailings when useless I would consign to the same agent that is at present employed in transporting valuable ore to the squatters, and, finally, a further portion to the ocean. To say more in reply to your aged correspondent would be superfluous now that he has blown off steam and all his vainglory is at an end. If I am the person Mr. Walker erroneously calls "T. Y.," I beg to inform him that I should be sorry to remain in Ireland or Cornwall either. I have lived in many mining countries, and I hope to add to my experience still more. I shall refrain from further comment on his epistle, as I may not be the party he refers to.

Bantry, Co. Cork, Feb. 25.

Y. T. **Bantry, Co. Cork, Feb. 25.**

MINING INDUSTRIES—CAPITAL AND LABOUR—STRIKES AND LOCK-OUTS.

SIR,—At this moment money is superabundant, and all but equal to the maximum standard of plethora, yet trade, commerce, and enterprise are disjointed, and distrust all but universal, consequent on the exceptional and lamentable state of the coal trade. Capital and industry are unquestionably the true parents of national as well as individual progress and wealth, and must remain united to ensure success. Yet the strikes and lock-outs in the coal and iron trades practically sever—nay, givoree—the principles that bind society together. The high price of coal and iron have strained manufacture and creative trade and commerce dependent on the motive power states. In the total and in thates and creative trade and commerce dependent on the motive power and creative trade and commerce dependent on the motive power of machinery until the strings have snapped asunder, and thus distrust prevails throughout every circle of manufacture, home industries, steam navigation, and even entered with expansive grasp into our past as well as future contracts in regard to both import and export trade and commerce. The Unionists and the men on strike incur none of the risks of the masters, yet they insist on exacting their own terms of remuneration and the period of labour. The collier, in intelligence and social character scarcely equal to the rudest agriculturist, dock labourer, scavenger, or sweep, is determined to dictate not only the rate of wages, but likewise insists on determining the quantity of coal to be wrought, and on hypothecating three days a week to pleasure, indolence, and dissipation. If ever legislation was necessary in settling the differences betwixt capital and labour the present is a time when the Government ought to interfere. They have made the first movement on the "board," and it is to be hoped that the Unions will be suppressed, and the stubborn, obstinate, and misled colliers thoroughly checkmated. The men ought to work six days a week, and 50% a-year is ample remuneration for labourers who stand at the base of the column, and earn their wages by the sweat of their brows. Society pays for the labourer in the cost of coals, and the greatest of our home industries, that of working our coal mimes, upon which depends the support and maintenance of the delicate fabric of all our machinery used in manufacture and trade, railways, steam shipping, mining, and diversified commerce, cannot remain in the hands of demagogues and ignorant workmen, nor be sustained at the cost of the public at exorbitant weekly wages for only three days labour. The quantity of coal now discovered, or known to exist, is about 144,000,000,000 tons, equal to 1200 years consumption at t lions sterling, or close on tenfold the indebtedness of the common-wealth. It is evident that the shopkeepers at Merthyr are taking alarm. The masters have only to be firm to starve the strike out. Six weeks more absence from labour will ruin one-half the trades-Six weeks more absence from labour will run one-half the tradesmen dependent on the wages of colliers, and they are beginning to recognise the fact. Merchants will not continue to give credit to shopkeepers who vend goods in an unproductive, and consequently prospectively bankrupt, district. The men have no justice whatever on their side. They shirk work, and indolence fosters discontent, and a dissatisfied mind ever generates insubordination and district. The only cure is to compel the men to work full time, and trust. The only cure is to compel the men to work full tim to stamp out the very existence of Unions and the power of strikes. Wealth should ever accumulate; to remain stationary is retrogression. So is it at present with the masters of coal and iron works. Again, capital should never be protected at the expense of labour, as whenever that occurs supply is certain to exceed demand. The workman is worthy of his hire, and capital is the fountain of labour. Enterprise would wither in its cradle, and thrifty industry perish on the threshold of success, if the strings of wealth were too tightly drawn. In fact, capital and labour are the two great forces of so-ciety, and whenever they stand apart incipient distrust arises, subsequent confusion ensues, and lastly panic. What is wanted is a good Conservative Government. Free trade is an extremely liberal and expansive concession, but masters in the hands of workmen is

simply democracy and revolution. The standard for copper ores in Cornwall on Thursday, the 13th inst., was only $113\frac{1}{2}l$. to a produce of $6\frac{1}{8}$ per cent.—say, 4l. 5s. 6d. to the miner, after deducting the smelters' charges. The 90 tons of blende sold by West Chiverton realised 5l. 14s., so that, in fact, black blende sold by West Chiverton realised 37.14s, so that, in fact, black jack is worth 17.8s. 6d. a ton beyond the copper ores of Devon and Cornwall. Since July last year East Caradon has declared a dividend of 2s. per share, West Seton 18., and South Caradon 41.—total 30721. from all the copper mines in Cornwall: while Devonshire has yielded no dividend since May, 1872—a period of nine months. At Botallack the loss on the quarter was 8021.2s., notwithstanding

coal? This mine is exhausting its ores at the annual rate of over 30,000*l*., with a loss of 3200*l*. to the proprietary. The only parttes benefitted are the lords, merchants, labourers, and executives. In all such cases as the Botallack the landlords should sympathise with the shareholders, and at once, and without hesitation, give up the dues. The land destroyed has been paid for at three times its value, and the landlord who exacts dues under such adverse elements as are now combined to cripple the miner is scarcely advanced beyond Odgers and Halliday, who live upon the contributions of uneducated colliers, while inciting them to ruin. Strikes and lock-outs mean are now combined to cripple the miner is scarcely advanced beyond Odgers and Halliday, who live upon the contributions of uneducated colliers, while inciting them to ruin. Strikes and lock-outs mean dearth and high prices—i.e., misery and destruction to labour or capital, perhaps to both. The copper mines in Cornwall cannot exist as remunerative investments at ruling royalties, cost of labour, materials, merchandise, and price of coal, unless an unexpected advance of 50 per cent. takes place in the value of copper. Dolcoath dividend is reduced to 1l. per share, hence in a mine of this magnitude a slight disarrangement in drainage or accident to machinery, and the high charges of working, at once take half, if not two-thirds of the usual dividend. The average dividend last year was 7607l. 10s. two-monthly, the last amounted only to 4396l. Cook's Kitchen dividend was 7s. 6d., and East Pool only 2s. 6d. a share, East Balleswidden, however, declared the usual dividend of 8 per cent. At South Crofty the profits at the recent audit were 132l. 14s. 2d., while a debit balance of 150ll. 19s. 1d. was carried over. The price of shares from 110l. has declined to 50l. per 937th. Unless the gains rapidly augment, I must congratulate the public on Cornwall holding the large bulk of shares. Had absentees possessed the majority a call would long since have been made to wipe out this debt, and the future would then stand on a clear and fair basis. A stern chase is generally a long one, and, so far as we can peep into the future, the absentee shareholder will not grow opulent this year from the dividends of either this or the East Pool, adjoining. South Condurrow appears to open out well, and West Basset is reported to have vast stores of tin. Why not bring it to market? North Roskear, St. Ives Consols, and West Tolgus work year after year—approaching bave vast stores of tin. Why not bring it to market? North Crofty is another damper on progress and prosperity. North Roskear, St. Ives Consols, and West Tolgus work year after year—approaching now nigh on a quarter of a century—without any benefit to shareholders. These mines absorb labour, consume materials and merchandise, keep the executives, and feed small shopkeepers, while the workhouses and unions are comparatively empty, the poor rates diminished, and the landowners enriched. It is time that such unremunerative works were abandoned. Then labour would find its fair level and equilibrium, and the price of tin advance from diminished supply. There is no other branch of home industry in existence which could be kept alive in a similar manner with such Cornish mining, without culminating in universal bankruptcy.

It is true that we have many valuable mines which pay well in Cornwall, but it is equally true that those most worthy the attention of the investing public are rarely, if ever, dealt in upon the London share markets. The members of that fraternity await the discoveries of others, and usually direct the attention of their clients to proper

the mine is looking rather better than usual. .To what other causes can this reverse of fortune be attributed than high wages of work-men, cost of materials and merchandise, and the famine charges for coal? This mine is exhausting its ores at the annual rate of over

share markets. The members of that fraternity await the discoveries of others, and usually direct the attention of their clients to properties when their merits are determined, and consequently their true commercial value established. The large gains in mining accrue to those who pioneer operations to develope and lay open mineral lodes, and when points are realised and success achieved it often follows that original shareholders secure thousands per cent. profits on the outlay incurred. Nil desperandum is the watchword of every truebred miner, while perseverance is the true harbinger of success.

There ought, unquestionably, to be a heavy export duty on coal, for coal, like the copper mines in Conwall, is exhaustible. Coal, again, differs from corn or cotton: the former is taken from the

again, differs from corn or cotton; the former is taken from the store-rooms below our feet, and every ton brought to surface compels us to a degree to dig deeper, and to increase the cost of production, while the latter are articles capable of being produced ad libitum by human labour. Only a certain quantity exists of coal in this country, and the getting of it becomes more costly as we have to go deeper into the natural store-rooms to take it out, hence it is not aur interest to increase consumption, even at home far less to not our interest to increase consumption, even at home, far less to encourage the foreigner to come to our shores and purchase it free of duty, and in open competition with our home industries. The right of self-protection is paramount to all individual rights in the right of self-protection is paramount to all individual rights in the legislation of a commnity, and the first duties we have to perform are to protect the country against the free export of coal—to dissolve and thoroughly extinguish all "cabals, conspiracies, and Union societies," and likewise "combined and organised strikes." Coal, it must be remembered, is not an article of produce like the fruits of agriculture, we cannot feed our neighbours without being poorer ourselves. Coal is a special gift of Nature, like a water-course, a harbour, or any other natural advantage, with one peculiar difference, that it is exhaustible. The presence of coal under our soil, and that alone, has created the vast industries of Lancashire, the West Riding, Staffordshire, woollen manufacture, alkali, the cotton and iron trades, copper, tin, and lead mining, steam navigation, railways, and other industries through which our factories are worked, and our swarming and increasing millions employed. Hence every ton exported is a ton withdrawn from our own factories, and in time ton exported is a ton withdrawn from our own factories, and in time our engines must rust and our industry perish for want of the heat which sustains it, while our people must seek their bread in foreign

Mr. Gladstone, although he now wishes to avoid the question of "supply and demand," "labour and capital," "strikes and lock-outs," at one time warned Parliament that the wealth of England—that wealth which enabled her to bear the weight of her debt, and which is mortgaged for the payment of her debt—depends on coal, and he urges that hypothesis as a reason why we ought to pay off that debt before our coal fields become exhausted, while now he contends that before our coal fields become exhausted, while now he contends that free trade should allow the foreigner to compete with home industry in an article of paramount—nay, indispensable supply—to manufacture, and the existence of our factories. He thus encourages foreign competition in trade and commerce, and allows other nations to warm themselves with the heat of fuel which the Creator of the universe has especially assigned to the community of our favoured island, and thus from high prices, debarred the poor, needy, and feeble from that warmtl and comfort in poverty, sickness, and declining age that is essential to their existence, even next to food itself. The beginning of the end is approaching. The manufacture and industry of England will soon show a tangible decadence, unless the free export of coal is debarred, Union societies, and lock-outs suppressed, and the cupidity of middle men and merchants controlled by the Legislature regulating the costs of railway carriage, and the profits of dealers after taking the coal from the pit's mouth. And the profits of dealers after taking the coal from the pit's mouth.

R. Thedinnick, Consulting Mining Engineer.

GREAT TIN WORKS MINE.

SIR,—I observe in the Mining Journal of last week that it is likely the above mining property is to be re-worked forthwith, and it is only surprising to those unacquainted with the circumstances that it has not been the case long ago. I very well recollect the limited trial made here nearly 20 years since, and know the difficulties which led to the stoppage. In starting a mine, in my opinion, it is of the greatest importance to have the report of the last agent of the mine, especially when such agent's report can be relied on, and I am glad to see that Capt. John Brown has given his report of the state of the mine as left by him, the bottom of which I am sure has not since been seen, and at which point the report referred to states the lode was richer than in the upper levels, showing the improving state of this main lode as it deepens. Such a report as that of Capt. Brown's I consider a guarantee for the success of the undertaking, as I know him to be a sound and practical miner, always found to be over cautious in his reports on mining properties, and a man of strict integrity, no better proof of which is the testimonial he holds from Messrs. Boiltho and Sons, bankers and tin smelters, of Penzance, Cornwall, whom he served as mining agent for many years.

This mine, it will be seen, is only 50 fms. deep from the surface, and the levels are extended no great distance east or west of the main shaft; it, nevertheless, yielded considerable quantities of tin from the surface to the present bottom, and the soft all where left off. To the best of my knowledge 11-in, lifts were used here for pumping the water, but they were not quite large enough, and the wood rook were continually breaking, so that at last they had great difficulty in keeping out the water from the bottom of the mine, and for want of means for the better working of the mine it was at last given up, to the regret of some and the aurprise of others. Within the last three or four years another lode has been worked by a party of small means, and without I observe in the Mining Journal of last week that it is

M

below the surface, who have sold from these shallow workings, I think, nearly 2000/, worth of tin, and I am informed that agents who inspected this lode report it to be worth from 10/, to 25/, per fathom where left off. This lode I have seen myself when in operation, and was a witness to some of the sales of tin, and I have since heard it talked over many times by miners who worked there, and are now anxious to see the water drained to have an opportunity of working the ground where they left off (on account of the increase of water) on tribute, which would leave handsome profits to the company. One of the miners has just stated to me that he, with three others—that is, four men—could raise at one point alone a ton of tin per month. This, it should be understood, is in lependent of what Capt. Brown reports of there being a side lode about 6 fms, north or the engine or main lode. The position and character of the ground is fully explained by those who have reported thereon, and contains several lodes in addition to those I refer to. I understand that a Cipt. Richards, of Devon Great Consols, inspected this property last week, and feel sure he can but corroborate the statements made by the many previous inspectors as far as he was able to judge from the present state of the mine. I am a miner myself, and have always said, and still maintain, that this property will be found the best tin mine in the whole district.

EGITIMATE MINING—No. II.

LEGITIMATE MINING-No. II.

SIR.—As you kindly inserted my last letter on this subject, calling attention to the Furze Hill Tin Mine, I now take the liberty of handing you a few particulars of another of the legitimate mines in this neighbourhood—South Ward Silver-Lead Mine—which is situate in the parish of Beerferris, Devon, adjoining the celebrated Old South Hooe Mines, and working on the same lode which proved so rich for silver-lead ores in that mine to the depth of 270 fms. This district has returned a larger amount of silver-lead ores than any other in Patron or Compared.

other in Devon or Cornwall.

This mine commenced working in May, 1869, by a company formed on the Cost-book Principle, in 2000 shares, which were subscribed for pri-This mine commenced working in May, 1869, by a company formed on the Cost-book Principle, in 2000 shares, which were subscribed for privately, a large proportion being applied for by those persons in the district well acquainted with the property. A 24-in, cylinder rotary-engine has been erected for pumping, with drawing gear attached, and lately a powerful crusher, for the purpose of preparing the silver-lead ores for market. The engine-shart has been sunk 60 fms, and levels extremed at this depth, and also at 40 fms. Two winzes have been sunk to communicate these levels, and lay open the ground for stoping The result of these opertions has been to make good discoveries of silver-lead ores, of which about 600, worth have been raised from driving the levels only, and will shortly be sold. In future there will be regular samplings of silver-lead ores, which will help considerably to meet the monthly costs during the further development of the mine. The amount of capital expended is only about 7500t, and future calls will be very light, judging from the present prospects of the mine. The lead ores in this district are rich for silver, yielding from 70 to 80 oz. to the ton, and realising 250, per ton. The quantity of water underground is very small. Trusting that my remarks calling attention to bona his mines may be of some service to legitimate mining, I will, with your permission, continue to render short accounts of other mines in this neighbourhood, that intending investors may have a selection of good properties to choose from.

25, Cheltenham-place, Plymouth, Feb. 26.
P.S.—In all legitimate mines shares are readily taken up by persons resident in

accounts of other mines in this neighbourhood, that intending investors may have a selection of good properties to choose from.

25, Cheltenham-place, Phymouth, Feb. 26.

P.S.—In all legitimate mines shares are readily taken up by persons resident in the neighbourhood, whilst those brought out with grand promises are only subscribed for by the outside public. If a little more caution were exercised in having every mine inspected before purchasing shares it would be the means of preventing large sums from being lost in worthless undertakings.

MINING IN CENTRAL CORNWALL.

"On their sustaining garments not a blemish,
But fresher than before."

But fresher than before."

Sir,—Those who through ignorance, or selfishness, endeavour to promote their own interest at the expense of their neighbours through the wide-spread circulation of your valuable Journal—such motives, I say, scener or later, become apparent to its numerous readers. In looking through list week's issue I came upon a letter relative to mines situated in Central Cornwall, as I knew the locality and the mines therein named, I became greatly interested as I read on, and coming to the last word, "Cassiterides," who, ancient person, I discovered to be the writer. He, noble Sire, states that a certain mine, which for reasons I shall name X, is rich, turning out rocks of thistone of over 7 cwt, some of if broducing more than 483 lbs, of tin to the ton. I was indeed glad to see that X looked so well. Again he states: "At present the tinstuff is being obtained above adit, whence very large quantities can be supplied for years." This, thought, is good, though strange that such a quantity of rich tinstuff should have remained for so many years high and dry. I read on, and coming to a sentence that called a neighbouring mine into question—this mine I shall call O—the remarks on which are certainly uncalled for. The venerable writer goes on to say: "The lodes which are said to be stamiferous in O are well known to be drenger and for retheir uX. Y Now, these remarks are calculated to raise on the one hand and lower on the other; but truth is strong, and will stand the test, as I shall presently show. We remember them what they say. I will here remark that in O the stanniferous rock is about 25 ft. wide, and the excavations made by the old workers are of enormous size, forming large caverns. Although these lodes are so poor, as asserted by "Cassiterides," yet they are all taken away down to the add text, and a little-below; while in X, where the lodes are so rich, they are standing highand dry in-normous quantities. Now, ancient Si

WEST MARIA AND FORTESCUE CONSOLS.

ing almolyhous letters with the scales are the statements in your correspondent's first letter. I now swhat I then stated was correct, and the fact that every decision given in the Could be plaintiffs took us into being in our favour is of itself a sufficient reply to his Everyone who already knows, or who may yet come to know, the real state of the matter, and the history of the whole of these proceedings, will be able to estim the value of the information sogratuitously given by your anonymous corresponder Glasgow, Feb. 27.

JOHN E. WATSON, Purser.

WEST WHEAL JEWELL MINING COMPANY. WEST WHEAL JEWELL MINING COMPANY.

Sig.—How long is Mr. Michell, the manager of the West Jewell Mine, to keep the shareholders in suspense about the discovery of the lode (if such there be) which was reported to be left at the 57 fm. level by the old miners? Mr. Michell promised to push on the sinking of the shaft to this level, in order that he might report the value of the lode. Then he spent several weeks to clear away the debris in the 57, west of Greene's engine-shaft, and the announcement is not yet made. This week he reports the work to be dinished, the debris being all removed, and still not a word about the expected lode, which he once imagined to extend from the 42 fm. level down to the 57. Has none been left? And is there any prospect of a dividend? I know the results of mining are uncertain, yet in this case assurances of a very positive kind were given, as may be indiged by the following dialogue between a director and Mr. Michell at the general meeting:—D. "When do you expect to be able to give 40 per cent. dividend?"—M. "When the mine is forked."—D. "About what time do you expect to unwater the mine?"—M. "In about five months."

Feb. 24.

EMMA SILVER MINE-THE REPORT.

EMMA SILVER MINE—THE REPORT.

SIR,—I have just risen from a perusal of this melancholy document, and as I cannot attend the meeting will you allow me to direct attention to a few important points to be considered there? The report seems to disguise the simple fact, which is that the total net profit of a year's working amounts to just 74,000%, for all beyond that is derived from vendor's cash and ores, just about 7 per cent. For this we have paid the directors 5150%. We were told much about the extra cost incurred in litigation, and opposing the Illinois Tunnel Company, which was stated to have absorbed a considerable portion of our earnings. I find the total law charges in Utah amount to 1133%, while the real expense is a sum of about 18,000%, yet to be paid, and to be paid out of this year's profit. What, then, is our prospect for the future? Can anyone believe that the directors went on paying 13 dividends, supposing them to be honestly gained, when they knew that they had received 111,000% from the vendors for cash and ores, and yet to be getting visibly nearly to their last penny? I have received a form of proxy from the Secretary, but for for cash and ores, and yet to be getting visibly nearly to their last penny? I have received a form of proxy from the Secretary, but for what purpose is not stated. Surely the shareholders will not sign them to be used for the purpose of stifling enquiry. Let us have half-yearly meetings. A meeting last July might have revealed the truth, and saved some of us from what has nearly been ruin. Let us have dividends (or apologies) at certain fixed times, and not at any moment the directors fancy. What a state of uncertainty the chance of a dividend on any imaginable day would keep us all in! And what a field for directors' speculation in shares. There are many other points I might mention, but I trust there will be a thorough examinution and plain speaking at the meeting.

Shareholder. nution and plain speaking at the meeting.

THE EMMA MEETING.

THE EMMA MEETING.

SIE,—Mr. T. W. Park, most conveniently for himself, has taken good care to be beyond our reach next Thursday; but cannot his brother directors be made responsible for his misdoings? They have been paying dividends for the last six months at least out of capital, being the balance of 110,000, handed over to them in cash and ore by the vendor at the time of sale. This the Chairman at the last meeting distinctly promised they would not do. Meanwhile, they knew that Mr. Park was disposing of his shares at a premium, thereby carrying off upwards of half-a-million of English money, in addition to another half-a-million which they paid him in cash. Were they not shrewd anough to guess that his object in paying them that balance was just to tide them over the time necessary for him to accomplish his purpose? I hope they were not. But the only alternative is that they were porticepes cromous—"sharp," in the American sense of the word. What a history is that of 1812, with its numberless American mines, utter failures, resulting in a loes to England greater than the Alabama compromise! There were some of as who hoped better things of the Emma, because an American of an apprently higher stamp, General Schenck, gave his name to it because of its "exceptional

character." There were more, like myself, who trusted more to the honour of five members of our English House of Commons. Alas! are we come to such a pass that English honour is no better than American? As a subscriber to your most valuable Journal, I appeal to you to use your pen in behalf of the unhappy shareholders. I might even ask you to vindicate our national honour, and leave one some little cause still to be proud of being

AN ENGLISHMAN.

February 21.

ALAMILLOS.—Feb. 12: The lode in the 60, west of San Rafael shaft, is split up into branches of quartz. In the 50, west of San Francisco shaft, the lode is very changeable; it was tolerably productive a few days since, but is poor at present. In the 50, east of La Magdalena shaft, the grantic is of a very hard nature. The lode in the 55, east of La Magdalena shaft, is well defined, yielding good stones of lead. In the 50, east of Taylor's engine-shaft, the lode is composed of calcarrous spar, but quite unproductive for lead at present. The lode in the 55, west of Taylor's engine-shaft, is large and strong, producing stones of lead. In the 50, west of San Yago shaft, the lode is very large, and improving in value, yielding ½ ton of ore per fathom. The lode in the 30, west of San Victor's cross-cut, contains a little lead, but not enough to value. In the 40, west of San Victor's cross-cut, the lode is very compact and firm, yielding ½ ton of ore per fathom. In the 50, west of San Victor's cross-cut, the lode is more open, and letting out water. The lode in the 50, east of San Victor's shaft, continues small and poor. The 20, east of Addis's cross-cut, is opening out a good length of productive tribute ground, yielding 2½ tons of ore per fathom. The lode in the 20, west of Addis's cross-cut, is every compact and regular, yielding 1 ton of ore per fathom. The lode in the 40, east of Crosby's shaft, is of a better appear ance than it has been, containing a little lead. In the 50, east of Crosby's shaft, the lode is genular. The lode is mad and unproductive pice of ground. The lode is the 50, east of Crosby's cross-cut, is very regular, letting out plenty of water. The lode in the 50, east of Crosby's cross-cut, is very regular, letting out plenty of water. The lode in the 50, east of Crosby's cross-cut, is very regular, letting out plenty of water. The lode in the 50, east of Crosby's cross-cut, is very regular, letting out plenty of water. The lode in the 50 on 50 fm. level the analysis and the same are put to drive

of the 50. Gea's winze, below the 40, has heled to the 50.

LINARES.—Feb. 12: Pozo Ancho Mine: The lode in the 85, driving vest of Crosby's shaft, is small and peor. The ground is hard and the lode unproductive in the 75, west of Crosby's shaft. In the 75, west of San Francisco shaft, the ode is compact and regular, and of a promising appearance, yielding 3 tons of ore erfathom. The lode in the 75, east of San Francisco shaft, contains a little lead, ut not enough to value. In the 65, west of San Francisco shaft, the lode is small nd unproductive. The lode in the 55, west of San Francisco shaft; is sufficient in sufficient in the 85 west of San Francisco shaft; is sufficient in sufficient in the 85 west of San Francisco shaft; is sufficient in sufficient in the 85 west of San Francisco shaft; is sufficient in sufficient in the 85 west of San Francisco shaft; is sufficient in sufficient in the 85 west of San Francisco shaft; is sufficient in sufficient in the 85 west of San Francisco shaft; is sufficient in the 85 west of San Francisco shaft; is sufficient in the 85 west of San Francisco shaft; is sufficient in the 85 west of San Francisco shaft; it is sufficient in the 85 west of San Francisco shaft; it is sufficient in the 85 west of San Francisco shaft; it is sufficient in the 85 west of San Francisco shaft; it is sufficient in the 85 west of San Francisco shaft; it is sufficient in the 85 west of San Francisco shaft; it is sufficient in the 85 west of San Francisco shaft; it is sufficient in the 85 west of San Francisco shaft; it is sufficient in the 85 west of San Francisco shaft; it is sufficient in the 85 west of San Francisco shaft; it is sufficient in the 85 west of San Francisco shaft; it is sufficient in the 85 west of San Francisco shaft; it is sufficient in the 85 west of San Francisco shaft; it is sufficient in the 85 west of San Francisco shaft; it is sufficient in the 85 west of San Francisco shaft; it is sufficient in the 85 west of San Francisco shaft; it is sufficient in the 85 west of San Fra per fathom. The lode in the 75, cast of San Francisco shaft, contains a little lead but not enough to value. In the 55, west of San Francisco shaft, the lode is small and unproductive. The lode in the 55, west of San Francisco shaft, is split into two branches, each yielding a little ore, producing ½ ton per fathom. The lode in the 56, east of San Francisco shaft, is split into two branches, each yielding a little ore, producing ½ ton per fathom. The lode in the 55, east of San Francisco shaft, is very regular, consisting of quartz and lead ore, yielding of the latter ½ ton per fathom. There is no improvement in the 45, east of San Francisco shaft, owner, below the 35, its lode is worth 1 ton per fathom. The lode in No. 183 winze, below the 35, the lode is worth 1 ton per fathom. Doe quinientes Mine: The lode in the 35, the lode is worth 1 ton per fathom. Los quinientes Mine: The lode in the 65, west of Taylor's engine-shaft, is becoming larger, and presenting a better appearance. There is a good stone of ore in the bottom part of the 55, west of Taylor's engine-shaft, is small, and unproductive. The lode in the 55, east of Taylor's engine-shaft, is were a far and the lode poor. The lode in the 54, seat of San Carlos shaft, the lode is regular and well defined, consisting of calcareous spar and lead ore, yielding fine lumps of lead, worth 1 ton per fathom. In the 64, west of San Carlos shaft, the lode is regular and well defined, consisting of calcareous spar and lead ore, yielding of the latter 1 ton per fathom. The lode in the 55, west of San Carlos shaft, the lode is small, and the ground very hard for driving. There is no improvement in the 45, east of Judd's. The 32, east of Judd's shaft, has failen off in value, but is again showing indications of improvement, yielding 1½ ton of ore per fathom. There is no change in the 45 fm. level cross-cut, south of Henty's shaft, the lode is small, and the ground very hard for driving. There is no improvement in the 45, cast of San Carlos shaft, below the 45 is not ca

[For remainder of Foreign Mines, see to-day's Journal.]

Meetings of Mining Companies.

BELOWDA BEACON TIN MINING COMPANY.

The first half-yearly meeting of shareholders in this company held at the offices, No. 1, Finch-lane, on Tuesday,
Mr. Kirk in the chair.

the English course along to a charlest man amount on the same backer. In sight term ask you be dealers of a state of the same backer. In sight term ask you be dealers of the same backer. In sight term ask you be dealers of the same backer. In sight term ask you be dealers of the same backer. In sight term ask you be dealers of the same backer. In sight term ask you want to be dealers of the same backer. It was not been same backer. The private of the same are same backers. It was not be asked to the same backers of the same backers of the same backers. It was not be asked to the same backers of the same backers of the same backers. It was not be asked to the same backers of the same backers. It was not be asked to the same backers of th

We have it on good authority that should tin become reduced in where seems, I am glad to say, no prospect, Belowda Beacon would a dividend-paying mine, and, therefore, I think we may satisfacthat we have here ore in abundance, and it only remains for us to most miner-like and economical manner we can. Capt. Stephens the way by the rich discovery he made on the elvan in October bits month some 30 fathoms further east. All this has been done at, moderate cost, as our large remaining working capital in unissued sha We made it a rule to keep down the monthly cost-sheet as low as a would admit, and we concentrated our efforts upon the cutting of thelvan which had not been seen before. You may, perhaps, be awar adjoining mine, Castle-an-Dinas, profits were returned on the first working from this elvan alone. We determined principally with the responsible for the first six or seven menths' working, so that she not open up equal to our expectations the loss might fall chiefly on have no hesitation in saying that our most sanguine expectations had not nearly such as the contract of the second of the

did not think either of the items, for advertising or commission to brokers, am the sum of 20ℓ . A rote of thanks was then passed to the Chairman, and the meeting separated.

WHEAL CREBOR MINING COMPANY.

WHEAL CREBOR MINING COMPANY.

A general meeting of shareholders was held at the company's offices, St. Michael's House, on Thursday,
Mr. EMANUEL in the chair.

Mr. Jehu Hitchins (the secretary) read the notice convening the meeting and the minutes of the preceding one, which were confirmed. He remarked that the meeting, which was to have been held on Feb. 12 for confirming the forfeiture of shares, had become lanecessary, as the whole of the arrears, with the exception of 2,6s, had been paid before that time. He then read the subjoined seport of Capt. Goldsworthy and a statement of accounts, showing 97.6s., had been paid before that the subjorned report of Capt. Goldsworthy and a statement of accounts, showing report of Habilance of 49%. Ss. 4d., and a balance of liabilities over assets

so of 39%, 8s, 4d., and a balance of liabilities over assets dd:—

di:—

g to hand you my report of this mine for the meeting to be held sith particulars of work done since the last general meeting, held sith particulars of work done since the last general meeting, held sith particulars of work done since the last general meeting, held sith particulars of work done since the last general meeting, held sith particulars of the sith particulars of the lode; for the particular of the last seen taken place in several points of operation. The 129, cast has been extended 3 fms. 4 ft. 2 in. by the side of the lode; for order of the last seen taken down, which has improved from 5 to various of the last seen taken down, which has improved from 5 to various of the last of the same we look for order of the last of the last of the last of the same we look for my overment, and it is now worth from 43%, to 50%, per fathom. In the last 6 ft. taken down the edit of 25% per fathom. Looking at the fine appearance of the wall of the drivage proceeds by the side, we look forward to a much more as this end advances and comes in over the 120. The 108 will be triall pare of six men, so as to reach a point where we propose trial pare of six men, so as to reach a point where we propose trial is effected, will enable us to stope from the back of the 120 ging from the back of the 120, so as to effect a communichen it is effected, will enable us to stope from the back of the 120 ging from the drivage the part of the lode now being driven on the north of the 96 and 84, if not the 72 and 48. As soon as we of this point, to drive a cross-cut in the 96, we shall do so. The has been extended 1 fm. 3 ft. 7 in.; the stratum is a light blue him and the production of copper ore. In the last 2 ft. driving an laif of the production of copper ore. In the last 2 ft. driving an inal for the production of copper ore, with strong individual to the production of the production of coppe

son observed that, with regard to the balance of

son observed that, with regard to the balance of the concern on the asset and liability account, it should be reincluded the charging of the cost payable that day, so that uping four months' cost against three months' ore. the reception and adoption of the reportand accounts was then and carried unanimously.

and the next business before them was the question of the call given the matter their careful consideration, and he thought call off 2s. per share they would be in a fair financial position. but, and the call would yield nearly 520., but if any shareholder one a larger call he would not vote against it.—Mr. Risley b.

preferable whilst they were making a call to make one a strong position; he would, therefore, propose that the

considered that 2s. would suffice, though 2s. 6d. would, of a better position. He would remind the meeting, however, hares into which the mine is divided were in the hands of

Arsons considered that 2s. would suffice, though 2s. 3d. Would, of men in a better position. He would remind the meeting, however, e 5193 shares into which the mine is divided were in the hands of metion being put to the meeting, three voted for a 2s. call and six lik, whereupon the Chairman declared a 2s. 5d. call to be made. He considered that there was a certain amount of respect due to the imme, and was, therefore, desirous to have the truthfulness or her rumours which had been current in the market assertained. With had sent his own agent, Capt. Richards, of West Caradon, to include the constant of the constan

ZALMONDON proposed to add a vote of thanks to Mr. Jehu Hitchins, their ary, who, he was sure, carefully attended to their business.

Proceedings terminated with the usual complimentary votes to the Chairman.

BELL MINING COMPANY.

The quarterly meeting of adventurers was held on Feb. 20,—Mr. REGINALD ROGERS presiding. This mine is at the head of the great Gwennap district, having all the continuance of the rich Penstruthal lode running through the sett, under the junction of the granite and

lode running through the sett, under the junction of the granite and killas rocks. For the last 50 years this sett has been considered by the highest mining authorities to be one of the best in the county of Cornwall. During all this time it has been held in grant, but now it is being steadily developed by an influential local company, with Mr. Cunnack, of Helston, as purser. Their prospects of success are very good, and during the last three months important discoveries of tin have been made. The accounts, which were presented to the adventurers at their meeting yesterday, showed that there had been an expenditure of 1464. Is. 11d. over the receipts on the three months' working, and to meet this it was decided to make a call of 30s, per share.

Capt. Harris, the agent, presented his report, which was as follows:—The engine-shaft is now down 11½ fathoms under the 10; in the last 2 fms. sinking a fine channel of ground has come in under the spar course, with the branches dropping upon the lode, which is now worth from 30½, to 46½, per fathom, with every prospect of continuing. We shall commence to drive east and west, and prepare to resume sinking as quickly as possible. In the 10 east we have put up a rise to resume sinking as quickly as possible. In the 10 east we have put up a rise to resume sinking as quickly as possible. In the 10 east we have put up a rise to resume sinking as quickly as possible. In the 10 east we have put up a rise to resume sinking as quickly as possible. In the 10 east we have put up a rise to want the result of the rise, but from the appearance of the old excuvations above there is a large piece of paying ground standing alongside, which will be available for stopping as soon as the test is holed, and the old workings cleared, and we anticipate having something good as soon as we get do the old bottoms. The 10 west has reached the cross-course, which we do not consider it advisable to cut through for the present. This level, but now the set of the contact is advisable to cut through f ground standing alongside, which will be available for stoping as soon as the is holed, and the old workings cleared, and we anticipate having something d as soon as we get to the old bottoms. The lo west has reached the cross-course, of the we do not consider it advisable to cut through for the present. This level, east and west of shaft, has opened good paying ground, which will be available when the water fails off. I regret that, owing to the hard spar course in the tand the elvan in the eastern end, our returns during this quarter have so if fails off. Had the mine been a little developed this would not have been but the temporary difficulty is more than compensated for by the improved reacter of the lode under the spar and east of the elvan. The mine never looked well as at present, and should things continue as they now are it will quickly be good position. oft and the

in a good position.

The report and accounts were passed, and after the meeting the adventurers died together, under the presidency of Mr. Cunnack, the purser. Various toasts were proposed, and the future prospects of the mine were very confidently spoken of ... Mr. MITCHELL said he was convinced that the speculation was a thoroughly legitimate one, and he had the greatest confidence that it would ultimately turn out to be a very remunerative concern. Perhaps it was somewhat premature to say that they had a rich mine, but if they could sink their shaft 40 or 50 fms.—which night be done in a reasonable period—they would then arrive at the junction of the Gobbans tin lode, upon which they were now working, with the great Between lodes the ground is filled with lodes and branches, and although sold results may be attained before it was to this junction, that "very great relations in the western district.

Capt. HARRIS, the managing agent, remarked that the mine had very much improved under the spar course, and although it was possible they might require a call or two from the shareholders to fully develope the mine, yet the time was not far distant when they would, at any rate, pay the working costs.—Capt. Origing, of Trescaven Mine, said he had been below, and he was much pleased with what he had seen. He had found the mine to be better than he expreted, and he believed that by-and-bye they would have a good property in Bell. The sett had been always regarded by miners as one of the best in the country. He was satisfied it would prove a very valuable one, though perhaps it may require a call or two more to lay the mine open so as to pay heavy dividends.

The CHAIRMAN said he had always had a great opinion of Bell, and, judging from the appearance of the old workings and the position of the ground, he had long been convinced that there ought to be a good outcrop of mineral there, if any existed in the district at all. For more than-50 years the best reputed miner in Cornwall had said that if another great mine was found in the district it would be in Bell, and his own opinion was that it was about the best piece of virgin ground to be found in the whole county, besides which there was no place in the county where equal facilities for working could be obtained, for it should be remembered that the Tresavean deep adit, which terminated in their sett, was draining their present lode 10 or 15 fors. under their present bottom; and when this was holed their pumping-gear might be dispensed with until they went deeper. There was no doubt this adit is quite clear, though the falling in of one of the old shufts prevented access to the end at present, still there would be no difficulty when the interest of the mine required this work to be done. Respecting the spar-course in the shaft which had caused the temporary interference with the returns, there was something remarkable. The old Gobbans adit, put in centuries ago, wa

EMMA SILVER MINING COMPANY.

A "private meeting" of the shareholders of the Emma Mine was held in the Religious Institution Rooms, at Glasgow, on Monday, and was largely attended.

Dr. WALKER explained that he and other shareholders had taken private meeting" of the shareholders of the Emma Mine was

upon themselves the responsibility of calling the meeting; and their conduct having received approval, the meeting proceeded to the appointment of a chairman. Several gentlemen who were nominated declined to act; but ultimately Dr. Walker agreed to preside. It was then unanimously agreed that the meeting should be open to reporters, the Chairman remarking that there was nothing whatever to hide.

ever to hide.

Mr. John Wright said he was much interested in the welfare of Mr. JOHN WRIGHT said he was much interested in the welfare of the Emma Company. He was a bona fide shareholder, and as such had given particular at tention to the prospects and the telegrams, to the prospects held out and the results which had followed, and to notices sent from time to time from parties at the mine, and he was particularly struck with the want of fulfilment which had characterised all the proceedings of those who had been at the head of the affairs of the company. As far as he could conceive, the property of the company was particularly struck with the want of fulfilment which had characterised all the proceedings of those who had been at the head of the affairs of the company. As far as he could conceive, the property of the company was relief to the company. As far as he could conceive, the property of the company was the past and the present, and also to their future prospects. They had trusted what they had seen coming from the directors, and from the managing party at the mine, and in the context were case they had been disappointed. Parties seemed on the other side with regard to the working of the shares and the company, by which their interests were very much sacrificed indeed. Any man in the position of the person who had been sending the telegrams must be considered as having very great power in his own had to work his sizuate in a way which could convery great power in his own had to work his sizuate in a way which could convery great power in his own had to work his sizuate in a way which could convery great power in his own had to work his sizuate in a way which could convery great power in his own had to work his sizuate in a way which could convery the provide the proposition of the company was held in Glasgow and in the West of Souland, and with the exception of the Chairman they had no person to represent those in Glasgow. It might, therefore, be worthy of consideration when the solid provides had been the provided by the power of the country of the had and the provided had bee the Emma Company. He was a bona fide shareholder, and as such had given particular attention to the prospectus and the telegrams,

and Mr. Provan. At this stage of the proceedings the Chairman received a telegram from Mr. Thomson, 29, North Bridge, Edinburgh, to the following effect:—"Shareholders here ready to co-operate in getting up a committee of investigation: have seen a number of them to-day; strongly advise that no proxies should be sent to the directors at present." (Applanse.)

A SHAREHOLDER thought the committee should furnish themselves with a copy of the register, and ascertain the number of shares they represented, and the power they had in their hands.

Another SHAREHOLDER thought it was too late to get a copy of the register to be of use for the approaching meeting.

Mr. M'SHARYNE suggested that it should be left in the hands of the committee to arrange with Mr. Ewing and Mr. Henderson.

A SHAREHOLDER considered that the meeting should appoint one or two gentlements og to London to attend the meeting, and to co-operate with the Edinburgh people.—Another SHAREHOLDER thought that the committee should consider that matter and report; and if they recommended that two gentlemen should be sent to London, he would at once concur. In the mentime, he quite agreed with the proposal that no proxies should be sent to the directors.

Mr. W BIGHT proposed that the meeting authorise the Chairman to telegraph to Mr. Thomson, Edinburgh, that the Glasgow shareholders should also appoint a committee to work along with the Glasgow shareholders should as appoint a committee to work along with the Glasgow shareholders, and their normaniation was approved of.—Mr. Henderson as to the appointment of Mr. Ewing and Mr. Henderson as representatives of the Glasgow shareholders, and their normaniation was approved of.—Mr. Henderson said he was honoured by the confidence reposed in him, but it would be impossible for him to attend the meeting in London, but as Mr. Ewing was a great deal in London attending to his patiliamentary duties, it was more likely that they could get him to take a seat at the board. However, he would be glad to go to London and ac

committee. The committee was then empowered to make what arrangements they considered best with regard to proxies, and were instructed to advertise the result of their decision. The meeting then separated.

EMMA SILVER MINING COMPANY.

The second ordinary general meeting of shareholders will be held

EMMA SILVER MINING COMPANY.

The second ordinary general meeting of shareholders will be held on Thursday.

The report of the directors expresses regret and disappointment that the result is so much less favourable than intil very recently they had reason to anticipate. There have been paid to the shareholders 13 monthly dividends, amounting including income tax, to 193,592,58, 2d.; while on finally making up the accounts to the end of December it turns out that the funds available for that purpose only amounted to 185,657. 198, 7d., leaving a deficiency of 7874. 5s. 7d., from which it appears that if a full balance-sheet could have been made out in time (which was impossible) the 18th dividend would not have been paid in full, although remittances for the payment of the dividend having actually arrived, and the output at that time being sufficient; the directors had no ground for withouling payment of throughout the year given the sharehold in the control of the payment of the dividend would not have been paid in full, although remittances for the payment of the dividend would not have been paid in full, although remittances for the payment of the dividend would not have been paid in full, although remittances for the payment of the dividend would not have been payment of throughout the year given the sharehold of the tunnel of the payment of the tunnel of the payment of the tunnel of the payment of the same payment of throughout the year in the payment of the same payments. They have possessed, and if at times it has been tardy or insufficient, some allowance ought of disappointment in the result of the year's operations. The disastrons fooding of the mine in June, the consequent eaving in of the great chamber and blockade of disappointment in the result of the year's operations. The disastrons fooding of the mine in June, the consequent eaving in the same payment of the payme

If an to flit the post of resuem manager.

All information as to the condition and prospects of the mine, and to push explorations vigorously.

The directors are of opinion that the shareholders are prejudiced by the very speculative character that attaches to their stock. They believe that the monthly dividend and the weekly telegram have a good deal to do with that. The monthly dividend clearly cannot be kept up steadily without a large cash reserve, and this so far the directors have failed in attaining. They recommend the following change:

—That instead of an interim monthly dividend of stated amount, interim dividends be paid from time to time of such amount as the directors find themselves in a position to pay. The directors have passed a resolution among themselves that their fees be reduced to one-half their present amount, with the addition of a commission of 1 per cent. on the net profits; but in no case shall the remuneration exceed the amount provided by the articles. They have made this change because they think the principle a correct one, that their remuneration should depend in some part on the prosperity of the company. The directors have lost the services of Percy Doyle, Esq., C.B., who has been obliged to resign on account of ill-health. Sir H. Selwin Ibbetson, Bart., M.P., and Sir Charles Wingfield, M.P., K.C.S.I. and C.B., have however joined the board.

INDEPENDENCE GOLD QUARTZ MINING COMPANY.

The second ordinary general meeting of shareholders was held at the offices, Royal Exchange Avenue, on Monday,
Mr. James E. Smith in the chair.

Mr. DAVID CORNFOOT (the secretary) read the notice convening

Mr. David Cornfoot (the secretary) read the notice convening the meeting.

The report of the directors stated that although a very large amount of work has been carried out at the mine, there was at that date about 11,000% of the capital unexpended, a sum which the directors are assured will be more than sufficient to put the mine in a dividend-paying position. Owing to the heavy nature of the works carried out and now in progress more time has been occupied than was anticipated, and many difficulties have been encountered in clearing the lower levels of water; these, however, have been overcome by the use of a powerful steam pump. The latest advices report the mine to be dry, and active preparations were being made to drive the bottom levels east and west, sink the shaft to a greater depth in order to develope the resources of the mine, and to raise ore, which is believed to be rich both in free gold and sulphurets. It is not anticipated that there will be any further difficulty in keeping the mine clear, as the pumps driven by water-power are of ample capacity, and the steam-pump will be at all times ready in case of need. It has been found necessary, in conjunction with the Sierra Buttes Company, to rebuild the flume which conducts the water to the mills of both mines; the new flume has double the capacity of the old one, and a plentiful and constant supply of water may now be relied upon. Amongst the works completed on the mine is a saw mill, which has already proved a source of economy to the company. A road with branches (about 2½ miles) has been constructed, which affords ready access to the timber, whereby the cost of hauling is considerably reduced. The old mill of 24 stamps has been repaired, and is capable of crushing 1390 tons of quartz per month. A new 20-stamp mill is on the ground, the erection of which has been deferred until the spring, owing to the great amount of work on hand. It is estimated that this mill will crush 1000 tons, thus giving a total milling capacity of over 2000 tons per month operty.

The CHAIRMAN said the report stated fully and clearly what had

the Charkans said the report stated faily and clearly what had been done since the raine became the property of the company, and the heavy and expensive nature of the works completed and in progress. He thought he might fairly say that as much had been done as could be done under the difficulties attending such mining operations. The mine had not been, nor would it be, worked with the intention of declaring immediate dividends at the sacrifice of its required the time was not remunerative stability, although the board hoped the time was not distant when dividends would commence to be declared. Active preparations were being made so to complete the works that at the opening of the season they would be able to report very favourable results. Having referred to the various works (as detailed in the report), he stated that the rebuilding of the flume, in conjunction with the Sierra Buttes Company, had been undertaken in order to secure an ample supply of water, and also in order to maintain their water rights—a very important element in Californian mining. The new flume extended for about seven miles, and their (the Independence) portion cost for labour and materials about \$12,500. Prenew flume extended for about seven miles, and their (the independence) portion cost for labour and materials about \$12,500. Precautions had been taken to prevent the influx of water into the mine—indeed, everything had been done that was possible; and the directors would have liked to have submitted a statement showing that profitable results had been realised, but the reasons they had been unable to do so was fully, and he thought satisfactorily, stated in the report, but no effort would be spared to bring the mine into

a dividend-paying condition. The agent, in his last letter, says—
"I am, I can assure you, most anxious to see this property placed on a paying foundation. I have unbounded confidence in its merits, and time will yet show, in my opinion, that it is for the price paid for it the most meritorious mine placed on your market from this country."
This agent had no possible reason in submitting these favourable prospects if they were not the result of his candid opinion; they

ere merely the confirmation of opinions expressed in former letters. were merely the confirmation of opinions expressed in former letters. It was a small enterprise, its capital being only 100,000l., which favourably compared with others, while there was the best possible grounds for believing that they possessed one of the best mines on the Pacific Coast, and presenting prospects of paying as good dividends as any. (Hear, hear.) There was yet, however, plenty of work to be done, but the directors trusted that before long they would have the satisfaction of announcing a dividend. (Hear, hear.) He then

the satisfaction of announcing a dividend. (Hear, hear.) He then moved that the report and balance-sheet be received and adopted. Mr. GUTERREZ seconded the proposition. Having visited the mine in 1871, he begged to offer a few observations on the past and what he considered the future of this property. In the prospectus, it would be recollected, their superintendent led them to anticipate dividends from the end of September last, although his codirectors with himself were not quite so sanguine as to this result being attained so early. They certainly imagined they should be in a position to begin dividends the early part of this year. Although he confessed disappointment thus far, their confidence in the ultimate success of the concern is unabated. Their mine is on the same lode and immediately adjoins the Sierra Buttes, a property which has for many years and is now giving large profits. He saw no reason why the Independence should not prove equally as good, if not better, than its neighbour, and he would endeavour to explain why. The Sierra Buttes has three lodes, all of which concentrate in the Independence, and form one large vein. Their lode is in some places 35 ft. wide: he had paced it himself. Their mine was almost a virgin one as compared with its neighbour, very little ore comparatively having been extracted. They had as yet only driven 1500 ft. on the course of the vein; the length of the sett being 5000 ft., or 3000 ft. more than the Sierra Buttes, the cropping of the lode may be seen about 3000 ft. from the eastern boundary.

The CRAIRMAN in acknowledging a vote of thanks to the board, expressed a hope elected director.

elected director.

The CHAIRMAN, in acknowledging a vote of thanks to the board, expressed a hope that at the next meeting—if he should still occupy the chair—the report and accounts would be far more satisfactory than those submitted upon the present occasion.—A vote of thanks to the Chairman terminated the proceedings.

cleeted director.

The Markax, in neknowledgings of the off marks to the board, expressed a long-counts would be far more satisfactory than those submitted upon the present ocas sion.—A vote of thanks to the Chairman terminated the proceedings.

ENGLISH AND AUSTRALIAN COPPER COMPANY.

The ordinary general mereting of shareholders was held on Thursday, at the London Tawern,—Mr. R. A. ROUTH in the chair.

The notice convening the meeting was read by Mr. Charles B. Rorses (the secretary).

The third of the secretary.

The third of the secretary.

The CHAIRMAN desired, with the permission of the meeting, before moving the adoption of the report, to advert to one or two of its salient points, then it would be open to any of the gentlemen present to ask any questions either as to the management of their business of the most happy to afford the meeting any explanation that might be required. New, the accounts then submitted, and which embrased a period of 12 months, dating of the control selves of this means of communication, so he felt assured that we of very material benefit to the company. (Hear, hear.) It ous to the proprietors that the importance of this wast improvement as of communicating with their agents could not be over-rated; in fact, in almost the same position as though the company's property were In the next place, as to coal, while he was sorry to say it was at n this country, in Australia it was at a very moderate price. Upon sation he might state what the it placed them in almost the same position as though the company's property were in Cornwall. In the next place, as to coal, while he was sorry to say it was at famine price in this country, in Australia it was at a very moderate price. Upon reliable information he might state that the prices now demanded for small coal in the colony was 5s. per ton; for seconds, 10s.; and for the best class, 12s. For the information of those who had but recently joined the company he might state that they had made a very judicious contract some time ago to have their works supplied with small coal at 2s. 6d. per ton. (Cheers.) With regard to the new works he desired to point out that neither in those now presented nor, probably, in the next accounts would the company feet the benefit to the full extent that must eventually result from the erecting and working of their new smelting establishment. There had been already made at those works 12s tons of the finest mela ever turned out, and that amount was now on its way to this country. He might add that valuable contracts were being made in connection with those works, and, consequently, that the company would soon make much more copper than higherto. This fact was regarded by the board as satisfactory and encouraging in the externme. As he had previously stated, the gross quantity of ore received from various mines during the period under review amounted to 5564 tons, as compared with 5441 in the previous 12 months, but if they referred to the year preceding that time, it would be seen that for that period the quantity was only 3300 tons. Thus, in two would be seen that for that period the quantity was only 3300 tons. Thus, in two years they had doubled the quantity of ore treated, and he confidently anticipated that a similar result would obtain a full supply of ore for all their works. They were working at present with only one hand, as if were; when both were employed the prosperity of the company must necessarily be propertionately increased. They had hoped, but in this he w

to compete successfully with any other company. In conclusion, he could only repeat his previously expressed opinion that, on the whole, the past year might be fairly considered as a period of prosperity; and, while he confidently looked forward to realising good results during the current year, he anticipated that the success of 1873 would even exceed that of the previous 12 months. (Hear, hear.) He thought the trade had settled down into a sound, steady one, and if that were so the company were in a position to take advantage of it. He (the Chairman) then moved the adoption of the report.

Mr. Lies esconded the resolution.

Mr. WRIGHT, possessing an acquaintance with the copper market, desired to support the opinion of the Chairman as to the prospect of good prices ruling and a steady market being maintained during the current year.

A prolonged discussion then ensued, in the course of which Messrs. LAMBERT, SURGEY, and others addressed the meeting. The points raised, however, were of minor importance, and received satisfactory explanations at the hands of the Chairman and other members of the board.

The resolution for the adoption of the report was then put and carried.

On the motion of the CHAIRMAN a dividend of 2s. 6d. per share, free of income tax, was then declared, payable on and after March 10.

Mr. A COBBETT moved the re-election of Mr. R. A. Routh as a director of the eompany. This, on being seconded, was put and carried.

The CHAIRMAN next moved the re-election of Mr. Spencer Herapath, which was also seconded and carried.

Mr. J. VINEY having been re-appointed as auditor, a vote of thanks was passed to the Chairman and the proceedings develops and the proceedings develops.

econded and carried.

J. Viner having been re-appointed as auditor, a vote of thanks was passed chairman and directors, and the proceedings closed.

CAMP FLOYD SILVER MINING COMPANY.

The first annual general meeting of shareholders was held at the offices, Austinfriars, on Monday,—Mr. GEORGE BATTERS in the chair. The first annual general meeting of shareholders was held at the offices, Austinfriars, on Monday,—Mr. George Batters in the chair. The report of the directors expressed great regret that the result of the workings has hitherto proved so contrary to all expectations, and that though a considerable body of ore has been discovered, it has proved to be of lower grade than the reports indicated. When the directors found in November that the mill was working at a loss, instructions were cabled to shut it down, reduce the force, and economise in every way. The superintendent anticipates meeting with ore of a richer grade as depth is attained. The mill and furnace are of the best construction, and are surrounded by other mines now working. They have requested Captain Wilder to ascertain if custom ore could not be obtained and worked profitably, and they are glad to learn that he thinks this suggestion can be carried out. Capt. Shaw, the vendor, has offered as some compensation to place several other properties he own in the district at the disposal of the company. These consist of seven mines, for which he is to receive payment entirely in shares, the only condition being that the company finds capital to develope them. This matter the board are entertaining, and have instructed Prof. Clayton to inspect and report upon them, as well as upon the three mines belonging to the company. As soon as this report arrives the directors will call a special meeting, to take the whole matter into consideration. In entering up the sales of buillion the board have had to estimate the amount received, owing to the non-arrival of the accounts from Salt Lake City. This, as will be seen from the balance-sheet, has caused an amount of 3143. Is. Sd. to be left standing to the company with Messrs. Wells, Fargo, and Co. This can be a sufficient to the solution of the company as when the voucher for its payment is produced.

The CHAIRMAN said that since the formation of the company a mill had been erected, and extensive explorations carried out at the mines. At the commencement they were sanguine enough to be-lieve that ere now the company would have been in a regular divi-dend-paying condition; in that opinion they were warranted not only by the reports of their own agents, but by the disinterested reports of everyone who visited the mines, nearly all of whom backed their opinion by purchasing shares at high premiums. Amongst others two of their own directors—Mr. Bowe and Mr. Brydges others two of their own directors—Mr. Dowe and Mr. Dryages Willyams. The last-named gentleman, as director of the Emma Company, while in Utah visited Camp Floyd, and gave the directors an extraordinary written report (which could be seen by any share-holder), and also bought shares largely at a considerable premium. There could be no question as to the bona fides of the parties connected with the undertaking, who went into it with a clear and full conviction that it was a concern good enough for them to become interested in and in which they could allow their friends to invest interested in, and in which they could allow their friends to invest. Every exertion was made in the early part of the company's career to complete the works considered necessary for the return of the ore supposed to have been discovered; the company had decided to take over the mines from the vendor, provided the report of Mr. Henry Sewell and Capt. Nancarrow confirmed his statements, which they did and the confirmation was placed in the hands of every they did, and the confirmation was placed in the hands of every they did, and the confirmation was placed in the hands of every shareholder before a share was taken; as soon, however, as the confirmation was received, and the whole of the shares were taken, the first object was to erect a mill. Capt. Shaw stated it could be erected for a certain sum of money; it was erected and started after some usual delays within about the amount computed. It was said a very large body of ore had been discovered, and a very large amount was discovered, as it had been returned as 3225 tons extended 2006 tons milled the milling cost avarging \$111 per text. amount was discovered, as it had been returned as 3225 bons extracted, 2206 bons milled, the milling cost averaging \$11½ per ton, the total cost of extracting, and charging the whole mine costs, exploration, &c., amounting to \$29 per ton, the whole having been charged not to capital, but to revenue. The entire cost of milling and mining was, therefore, about \$40 per ton; as the aggregate return had been \$75,466, the average return was \$34 per ton. As soon as it became known that the quality of the ore had so fallen off that it could not be milled to a profit the director telegraphed to Capital and the milled to a profit the director telegraphed to Capital it could not be milled to a profit, the directors telegraphed to Capt. Wilder to stop running the mill, and also all expense beyond that absolutely necessary. There were 30,000% at the disposal of the diabsolutely necessary. There were 30,000% at the disposal of the directors, and after paying for the erection of the mill and carrying out the exploratory works there remained 1100%, and over-drafts could not be drawn beyond 500%. They now possessed a very valuable mill, described as the best in the country, and a very large able mill, described as the best in the country, and a very large mining property, which up to the present had had but little done upon it in the way of development. An incline shaft had been sunk 180 ft., and the favourable feature was that they were sinking on a lode yielding good ore, so that there was every chance of discoveries being made. A very gloomy view of matters had been taken, simply from the fact that the reaction had been so sudden, and so great, from high bones to degroundency and almost despire but he did not from the fact that the reaction had been so sudden, and so great, from high hopes to despondency and almost despair, but he did not think they were justified in taking too gloomy a view either of the value of the property or the position of the company. The directors trusted that shareholders would not be led away to desert their property, but that they would do their very best to turn it round, in the hope and belief that it may be reinstated in as good a position as it had been hoped it would now be. (Hear, hear.) Capt. Shaw (the vendor) who was in the room, was the joint owner of several other mines in the neighbourhood, and offered them to this company upon such terms as in the event of their non-success he nor his partners would receive anything from them. It had been thought desirable such terms as in the event of their non-success he nor his partners would receive anything from them. It had been thought desirable to have the report of a thoroughly independent authority, and Prof. Clayton had been selected, it having been ascertained his report could Clayton had been selected, It having been secretained ins report could be obtained for a reasonable sum; it was expected in a week or ten days, and the directors suggested that three or four of the principal shareholders should be appointed a committee to confer with the board upon the receipt of that report, and to advise generally as to the best course to pursue in the future. The board believed the company's mines to be valuable, and the mill property was likewise valuable; and other mines in the neighbourhood could be adverted to the company. The directors in the company. had upon terms involving no cost to the company. The directors had upon terms involving no cost to the company. The directors believed if the company's property were energetically handled no shareholder need lose his money. They were fully alive to the importance of employing the mill upon customs ore, and something, no doubt, could be done in that direction as soon as the season opened, although there was every prospect it may be fully employed with ore from their own mines, for it could not be held as reasonable that a property which had yielded over 3000 tons of ore in 12 months, without any attempts whatever being made in the way of explorations, did not possess large deposits. He fully believed there were rich deposits yet to be discovered, and that the company's mines were valuable, and thoroughly deserving energetic management. (Hear, hear.) The directors had acted for the benefit of she company, and up to the present their services had been unpaid, and company, and up to the present their services had been unpaid, and would be happy to continue to do the best for the interest of the undertaking. They had not the least desire to leave the company would be happy to continue to do the best for the interest of the undertaking. They had not the least desire to leave the company simply because difficulties threatened; on the contrary, they were here to-day by their work, but if they had not the entire confidence of the shareholders were perfectly willing to resign. As far as he was personally concerned, never in the whole of his experience, which extended over a period of more than 30 years, had he been connected with any enterprise that had caused him so much pain and any interpretation not not be which he had devoted so much time or connected with any energines that had devoted so much pain and anxiety, nor one to which he had devoted so much time or anxious care as he had done to this company. (Hear, hear.) He was perfectly willing to give his time and attention if the shareholders so desired, believing, as he had already said, the property was a valuable one. (Hear, hear.) Having stated that he fully believed the company had no debts, and that it was perfectly solvent, he then

moved that the report and accounts be received and adopted.

F. COPE seconded the proposition.

Mr. F. Bennert asked Capt. Shaw whether, in his experience of the line formation, the mineral following the same run as the rock did not indicate, or lode?

Capt. Shaw said he had never had any experience of linestones tions—indeed, he had never had anything to do with silver mines before is nection with Camp Floyd. All the information he possessed was obtained Capt. Wilder.

The CHAIRMAN said there could be no doubt that it was a well-defined log, good walls.

The CHAIRMAN said there could be recorded for 2260 ft., and although Mr. Bennett said the onterop had been traced for 2260 ft., and although the developed for only 356 ft. a large amount of rich ore had been extra could not see why the drift had been driven in barren ground. He had formed there was a large quantity of very hard rock, and it was imperaised or not unless examined by an assurpossible whether it was mineralised or not unless examined by an assurpossible rock, which no doubt exists in large quantities. He wanted to know show the other rock?

formed there was a large quantity of very hard rock, and it was impossible whether it was mineralised or not unless examined by an assayer; and rock, which no doubt exists in large quantities. He wanted to know why rock—which was a decomposed sulphuret of silver—had not been selected with the other rock?

Mr. Scorr proposed, as an amendment to the reception and adoption aport and accounts, that a committee be appointed to investigate the affactor of the control of th

Mr. GUITERBER and at 46.—Mr. ACTERBER and the bought some of Mr. Hussey's: were sold at double 64.

The CHAIRMAN said that Mr. Brydges Willyams, while at the rexpert with him, bought 250 shares; Mr. Bowealso believed them one, and Mr. Stuart Lane likewise telegraphed for the purchase (the Chairman) still believed that their yet unexplored property wand required only to be properly developed to make it a great success But as to American mines, his name has been seen for the last time tion of any new company. There were valuable, were valuable, mine forms, and Nevada—mines of unparalled richness—but no doubt gother side of the Atlantic knew their business better than those on was for Englishmen not to trust them any more.

Mr. Scorr said he had been entrusted with 2000 or 3000 votes, the of which were desirous that an investigation should take place, a had not yet expressed any opinion as to the management of the min. Mr. MACARLANE suggested that should be left to the commin. Nor would it be judicious for the directors to give an opinion open; just now, but should be allowed to chose their own time and oppo any change if necessary.

just now, but should be allowed to chose their own time and opp-nny change if necessary.

The CHAIRMAN said that the only paid agents at present on the resent out from this office, Mr. Bousfield, and Capt. Wilder, at a month. All other expenses were stopped immediately upon the crectors would give their immediate attention to get a better misommittee so decided.

rectors would give their immediate attention to get a better manageme sommittee so decided.

Mr. Scott withdrew his amendment, provided the directors pledged the office of the meeting.
Mr. Core suggested the better plan would be to call another meeting.
Mr. Scott then consented to withdraw his amendment unconditionally.
The Chalman said the shareholders might depend upon it they would together as soon as Professor Clayton's report was received.—A Shazu aid that at the meeting in November he asked Capt. Shaw if he had seld his shares, and he replied in the negative, but such was not the case.
Capt. Shaw said that when he left this country for America he left "as a number of shares at par, and those holding the "call" had sold before unred to England.

In reply to a question from Mr. Shell, the Charman said that the management of the said that when

number of shares at par, and those holding the "call" had sold below is turned to England.

In reply to a question from Mr. Snell, the Charman said that the miss completed within the terms of Captain Shaw's contract; 4000/, had been speak apon the furnaces.

Mr. Swell, said that Capt. Shaw by his agreement provided for the femals a cost to the company not exceeding 12,000/. Had Capt. Shaw returned look of the contract was contract when the said that Capt. Shaw said the contract was completed the telegraphed the fact to the director.

Mr. MACPARLANE asked if Mr. Hussey was a promoter of Camp Flord, side as purchase his shares from Capt. Shaw?——The Charlman believed Mr. Swell as promoter, but he purchased his shares in the open market.

Mr. Corg said that with respect to the additional cost of the mill, the size had a telegram telling them of the advisability of increasing the power; help onfidence in Capt. Shaw, and did not believe a single dollar had stuck this har to be contracted to the contract was the promoter of the security of the security of the security of the said that the total expenses after Dec. 31 had answell har good that the total expenses after Dec. 31 had answell bout 2500, per month; on this side the expenses were merely those in cases with the office.

Mr. Swell, said that Capt. Shaw undertook to pay all law expenses.

The SECRETARY added that the total expenses since Dec. 31 had answell bout 2500, per month; on this side the expenses were merely those in cases with the office.

Mr. Swell, per month; on this side the expenses were merely those in cases.

Mr. Swell, per month; on this side the expenses were merely those in cases.

with the omee.

Mr. Svell, proposed as an amendment that the report and accounts he assed, but that the meeting be adjourned, which, upon being seconded, was put inly two hands were held up in its favour.

The motion adopting the report and accounts was then put and carried was discontinuously by a discontinuous property.

two dissentients.

Messrs. Scott, Allan (of Inman and Co.), and Mr. Bennett were apply committee to confer with the board. Mr. Good was appointed audion the proposition of Mr. Bennext, seconded by Mr. Scott, a vote of the passed to the Chairman and directors for their services during the purpose the proposition of Mr. Snell, seconded by Mr. Allan, a vote of the passed to Mr. W. J. Lavington (the secretary) for his attention to the late.

MARBELLA IRON ORE COMPANY.

An extraordinary general meeting of shareholders will be held March 4.

The directors, in their report, have to admit a considerable measurent that the working results do not enable them to design ment that the working results do not enable them to seelare from prome dend of 15 per cent., which at the beginning of the year was expected. company had hardly commenced operations when a most serious landing covered up their workings, and a second similar landslip occurred in M consequence of these has been a great difficulty and expense in the extractioner, as may readily be understood from the statement that, while the convex of the serious properties of the serious design and the same period. In this single circumstance lies the difference a small and a large profit on the work of the past year, and, to a certain experiment of the same period. In this single circumstance lies the difference as mall and a large profit on the work of the past year, and, to a certain experiment of the same price of the profit of the contracts, and to get some advantage from the present year) the priced contracts, and to get some advantage from the present advanced ore, in which case the directors feel confident that the profit for the company has sustained both loss and inconvenience through the set of the vendors, whose personal liability the directors had considered as in addition to the securities held for the guarantee of dividends. The direct of the company has not sufficient working capital to enable it to pay for a single part of the past of the past.

The company has not sufficient working capital to enable it to pay for a single part of the past of the

tirely dependent on the open market, as there is often great diffi-ships altogether suitable in size and fittings, and at reasonable frei. The company has not sufficient working capital to enable it to pa-out using its borrowing powers, but the directors think it more ex-debentures to the extent of 26,000. (in 10. debentures), payable is bearer, with coupons attached, for half-yearly payment of interes 8 per cent. per annum; the shareholders to have option of them at debenture for every five shares; part of these debentures to be rede-at the option of the directors.

The directors believe that the profits of the ships will be suffi-interest, and redeem a considerable part of the capital annually. year 90871. 13s. 3d. has been added to capital account, consisting of a stock, outlay on galleries for developing the mine, law costs. A sum has been placed to a suspense account. This consists of outlay what strictly chargeable to capital account, is so far exceptional in charact not to be all thrown on the one year's revenue. The auditors prop-

rer the five years of the guarantee; one fifth, therefore, is now charged to revenue, the set profit of the year's work amounts to 7078. 5s. 10d., from which the dishe set profit of the year's work amounts to 7078. 5s. 10d., from which the dishe set profit of 1000. It is not provided at the rate of 4s. 8d. per share on 30,000 shares, set of recommend a dividend at the rate of 4s. 8d. per share on 30,000 shares in the first of 1000. The trustees for mounting to 7000. It is shared the result of 1000 vendors' shares will then have in their hands 4s. 8d. per share, amounting the year, 9511. 18s., in all 2118/9s. 4d. From a 1000 vendors' share the securities, they can pay a further dividend of 1s. 8d. stillars, which, on 25,000 shares in the hands of the public, amounts to 2083/6s. 8d., grahars to early to next account 35/2s. 8d. sershare which, on 25,000 shares in the hands of the public, amounts to 2083/6s. 8d., grahars to early to next account 35/2s. 8d.

The total content of the vent of the public of the public of the public of the securities of the public of the year, the deliciency on guarantors on June 30.7½ per cent., or a public of the year, the deliciency on guarantee being thus under 4½ per 10% per cent. for the year, the deliciency on guarantee being thus under 4½ per 10% per cent. for the year, the deliciency on guarantee being thus under 4½ per 10% per cent. for the year, the deliciency on guarantee being thus under 4½ per 10% per cent. for the year, the deliciency on guarantee being thus under 4½ per 10% per cent. for the year, the deliciency on guarantee being thus under 4½ per 10% per cent. for the year, the deliciency on guarantee being thus under 4½ per 10% per cent. for the year, the deliciency on guarantee being thus under 4½ per 10% per cent. for the year, the deliciency on guarantee being the year of the

VAN MINING COMPANY.

The half-yearly general meeting of shareholders was held at the the han-yearly gon Wednesday, less Austinfriars, on Wednesday, Mr. Thomas Clement Mundey in the chair.

Mr. W. J. LAVINGTON (the secretary) read the notice convening

the half-yearly general meeting of shareholders was held at the half-yearly of the Austinfriars, on Wednesday, Mr. W. J. LAVISOTOS (the secretary) read the notice convening to meeting.

The Piport of the directors was read, as follows:—
The Piport of the directors was read, as follows:—
The Piport of the directors was read, as follows:—
The Piport of the directors was read, as follows:—
The Piport of the directors was read, as follows:—
The Piport of the directors and the company, dudy certified by a half-year of the piport of t

The CHAIRMAN said:—I have much pleasure in submitting to you sent accounts, as they are fully equal to any that have per in this mine. That, notwithstanding the scarcity d them in this mine. That, notwithstanding the scarcity of ur, the rise in wages to miners (in some cases 25 per cent.), the our, the rise in wages to miners (in some cases 25 per cent.), the mace in price of coals and of all kinds of material, and the severe ather, which has impeded dressing operations considerably, the idends made for the year have been handsome. The reserves to been augmented to the extent of upwards of 250,000% by the exsection of the lode rich in the 60, and not that only, but the y strong indications there are for a rich lode in the 75, as stated the report of Cant. Williams all promise a permanent and prohe report of Capt. Williams, all promise a permanent and pro-sing future to the mine. (Hear, hear.) Mr. Lavington had pre-ed a statement of what the mine had done since it became the perty of the present company. The particulars of lead sold up the end of 1872 were:— Average price Tons. Amount received. Average price obtained.

First half of 1860 (5 To and 1

Becond	at of 1009	(o months)	. 830		£11,198	15	0 .	*****	£13	9	934
First	ditto	*************	1.450		19.356	- 5			13	7	0
Becond		1010	2,025		26,708	10	0 .		13	3	93/
First	ditto		2 445		91 921	0				16	31/4
Becond		1871	2,600	******	32,488	10	0 .		12	11	51/
First	ditto	************	21,7200		714 916	5				15	034
Becond		1872	2,920		40,867	0	0 .		13	19	1034
-sound	ditto	*********	2,850		41,624	7	0 .		14	13	134
	1	eral average on as been :— Date.	-						A		e price
Bosse	half of 18	69 (5 months)	1	20	€ 30	3 0	CLEE		69	B	eu.
First	d ditte	0 (contract)	2	00	700	0 0	0			10	
Secon	ditto	1870 (contract) to ditto	t) 1	00	350	0	0		. 3	10	0
First	dista	to ditto	4	50	1,345	2 10	0		. 2	19	3
Becon		AUSE	6	00	1,900	0	0		3	3	0
First	ditto	to ditto	7	00	2,693	3 0	0		. 3	16	1134
Becon		1872 ditto	8	90	3,258	3 5	0		. 3	13	234
	CORE	to ditto	2.3	00	9 904	3 2 5	- 6		-	20	9926

ieneral average on sales all through, 3/. 7s.
encement of the company there has been paid in General avera idends 120,750l., as follows:

5 5-6 per cent.

	ending June, 1870	12,000 231/2	,,,
Ditto	Dec., 1870	18,000 355/8	,,,
Ditto		18,000 2834	22
	sed capital.	,	**
Ditto	Dec., 1871	18,000 2834	20
Ditto		21,000 321/2	**
Ditto	Doc 1879	91 750 34	**

It now only remains for me to add that Captain Williams's manage ment continues of a most efficient and zealous character, and that he is present to afford any additional information that may be desired. I will now move that the report and balance-sheet be received and adopted.

OLDREY seconded the proposition. Mr. ROBERT

Mr. ROBERT OLDREY seconded the proposition.

Mr. GEORGE BATTERS said it was most important to have the testimony of Capt. Williams that the cutting of the lode rich at the 60 had increased the reserves by more than 250,000%. Immense developments had been made during the year, and at no single point did a failure appear to have taken place. The length of the course of ore increased in depth; and there appeared to be no end to the amount of lead that was being laid open, both easterly and westerly. He (Mr. Batters) was very glad to hear that the westerly shaft would shortly be made use of for drawing through, for he did not see how the immense quantities of lead that were being discontinuous. shaft would shortly be made use of for drawing through, for he did not see how the immense quantities of lead that were being discovered could otherwise be possibly raised to the surface. No doubt Captain Williams had had many difficulties and troubles to contend against during the past year, but he appeared to have tided them all over in a most satisfactory manner, and that at the present moment he had a good supply of labour. The directors had acted wisely in the erection of cottages for the men and a school for their children, and in surrounding the men with all reasonable comforts. They had had to pay an increased price for labour, and also for coals; his knowledge of Captain Williams was that he was most economic in the use of that valuable product; but the whole consumption was so triffing that the increased price could not make a difference of the consumption was so triffing that the increased price could not make a difference of the consumption was so triffing that the increased price could not make a difference of the consumption was so triffing that the increased price could not make a difference of the consumption was so triffing that the increased price could not make a difference of the consumption was so triffing that the increased price could not make a difference of the consumption was so triffing that the increased price could not make a difference of the consumption was so triffing the consumption that the increased price could not make a difference of the consumption that the increased price could not make a difference of the consumption the consumption that the increased price could not make a difference of the consumption that the increased price could not make a difference of the consumption that the increased price could not make a difference of the consumption that the increased price could not make a difference of the consumption that the increased price could not make a difference of the consumption that the increased price could not make a difference of the consumption that the consum tion was so trifling that the increased price could not make a dif-ference of more than a few hundreds of pounds in the year's expen-diture, and that had been covered many times over by the increased price of lead-(hear, hear)-while the higher price of labour and materials were far more than counterbalanced by the progressive increase in the riches of the mine. The outlay on machinery account was drawing to a close, so that there would be no further heavy drawback on that account; the capital for that special purpose was raised at the most opportune time, and employed most advantageously, inasmuch as without the aid of that machinery they would now be unable to send to market their present returns. But that was only one instance of the practical foresight which had characterised Capt. Williams's management from the very outset. (Hear.) There could be no question that Van was looking better, and was of far greater value than at any former period and the cutting of the was only one instance of the practical foresight which had characterised Capt. Williams's management from the very outset. (Hear.) There could be no question that Van was looking better, and was of far greater value, than at any former period, and the cutting of the lode at the 60 fm. level proved the future of the mine in still greater depth. When the mine was taken over by the present company there was a problem to be solved—reports were circulated that the lode would be cut poor first at the 15, but it had been cut richer at every succeeding level, and richest at the 60, proving most thoroughly all Capt. Williams' theories. It proved, moreover, far more than the actual money value of the increased amount of ore represented by the 16,000 tons of lead and 5000 of blende, inasmuch as it made certain that the lode would at least be of the same value at the 75, and probably to the 175, judging from the extent of the gas, the water, the richness of the lode, and the settled stratification of the "country." Nothing, to his mind, had been so completely satisfactory in the whole history of Van as the driving of the cross-cut and the cutting of the lode at the 60. Even with the present discoveries it was not possible to exhaust the mine in the present generation. (Hear, hear.)

The Chairman said it might be satisfactory to know that at the present time there was not a single claim against the company.

Mr. Cope said that under the direction of the Chairman and the management of Capt. Williams each shareholder had perfect confidence in the manner in which the whole affairs were being conducted.

Mr. John Batterias said he was more than satisfied.

The Chairman should come in due course.

Capt. Williams cach shareholder had perfect confidence in the manner in which the whole affairs were being conducted.

Mr. HUNLIAMS (the manager) said the Van Mine was of considerably greater money value than it was thelve months since. Generally speaking, large wide lodes were called "flats," which, as was deubtless known to many pres

runch tempted to say they were yet only just on the crust of the deposit. (Hear, hear.) He believed that the "bastard" or soft part of the lode would become the main lode in depth.

Mr. Hunt: That is, it would be ore bearing throughout?——Capt. WILLIAMS Yes. It afforded him great pleasure to find he had satisfied the company; he had tried his best to do so from the commencement, and intended to do so in the future.

Mr. G. Batters asked if the indications in Van, being in the limestone furmation, were not altogether of an exceptional character, and, indeed, as had never been known in any other mine?—Capt. WILLIAMS and had never known such indications is clay-slate elsewhere.

Mr. Peter Watson asked how far the lode had been in the 60?—Capt. WILLIAMS: Two feet.

Mr. Peter Watson sked how far the lode had been in the 60?—Capt. WILLIAMS: Two feet.

Mr. Peter Watson and the time it occupies will depend upon the quantity of water. I hope it will be a month before it can be touched again.

The CHAIRMAN said those shareholders unacquainted with the history of Vans should be informed there was no danger whatever in this accompaniment of water and gas, while it was the most favourable indication that could possibly exist.

Capt. WILLIAMS said it would look very black if there were no water and gas.

Mr. R. Oldber asked Capt. Williams if, in his estimate of increased reserves to the extent of 250,000. by the cutting of the lode rich at the 60, he had computed anything for the ground below the sole of the level? That is, whether, as in the Cornish measurements, he had calculated so many fathoms below the bottom level.

Capt. WILLIAMS said he had not estimated anything below the 60.

Mr. Oldbers asked whether as the lode had been cut rich in the 60, and thereby the mine.

Mr. Cope asked whether as the lode had been cut rich in the 60, and thereby the mine.

the rock, so that in case of any account every the mine.

Mr. Copz asked whether as the lole had been cut rich in the 60, and thereby the permanency of the mine established for at least the present generation, some of the exploratory works could not be judiciously reduced and the returns increased? He knew the directors were the largest shareholders, and held their interest as a permanent investment, but he should like to see the shares commanding a price in the market more approaching their actual intrinsic value.

The CHAIRMAN said the price of the shares on the Stock Exchange depended on the public and the supply and demand of the shares. No man could rule the quotations. Although great discoveries were being made they could not bring more over to surface at present.

the public and the supply and demand of the shares. No man could rule the quotations. Although great discoveries were being made they could not bring more ore to surface at present.

Capt. WILLIAMS would be very sorry to stop any of the exploring works. Had that course been adopted the saving during the last six months would not have exceeded 600%, while by continuing explorations they had discovered an additional 16,000 tons of blende. He must say, however, when they cut the lode at the 75, in about 14 months hence, they might then work some of the best parts, and easily double the present returns. If it were now determined to stop explorations he would immediately resign his position as manager. Mr. R. Olders said he had gone very carefully into that question with Captain Williams, and there was not a single point that could be stopped without injury to the future of the mine. It would, of course, make a very great difference when the 60 had been laid open.

The motion adopting the report and accounts was put and carried unanimously. Mr. HURRELL said the shareholders would be neglecting an important duty if they did not award their best thanks to Capt. Williams for the very able manner in which he had performed his duties. The sole object of his heart seemed to be the progressive success of Van, the child of his adoption, which had now grown to a giant, and was still increasing in its greatness. Captain Williams was not only developing Van for the present shareholders, but for those who may come afterwards. (Hear, hear.) It did not matter to the proprietors whether the shares were at 40, or 80% in the market, as they have to hold them all their lives. All they wanted was good dividends, which they now received, but eventually they must be increased quarter by quarter. He begged to propose that the best thanks of the shareholders be given to Capt. Williams for the zealous and efficient conduct he had constantly displayed in the management of the mine.

Mr. G. BATTERS seconded the proposition. No manager had di

world.
The motion was put, and carried unanimously.
Capt. Williams appropriately acknowledged the vote.
Upon the proposition of Mr. Huyr, seconded by Mr. Slow, a cordial vote of thanks was passed to the Chairman and directors.
The Chairman thanked the shareholders for this renewed mark of confidence, and assured them that the directors being the largest shareholders would continue to do their utmost to promote the prosperity of the mine. (Hear, hear.)
The meeting then separated.

Source Characock At a general mosting of shaveholders held at

SOUTH CARADON. TH CARADON.—At a general meeting of shareholders, held at le, on Tuesday (Mr. James G. Dymond in the chair), the accounts for October, November, and December showed a profit of 2057/. 14s. 8d. A divided 2048/. (4f. per share) was declared, and 3173f. 7s. 5d. carried to next account. (John Holman says—"You will perceive you are again enabled to declare a 4f. dend, notwithstanding the high price of materials, labour, &c. I am pleased form you our mine continues to look much as it has for some considerable time.

EAST WHEAL UNY.—At the meeting (Feb. 20) the accounts showed a credit balance of 711.18s. 10d. A call of 5s, per share was made. Capts. Rich and Hambly say—"Our machinery is in good working order. We have sufficient pitwork to drain the mine to bottom, and have a stamping-engine, with boilers and axle, on the vaine, to put up as soon as we see sufficient tin ground to justify the erection. The sending down of our pitwork is being done by steam-captain instead of manual labour, thereby saving expense. The cost of coal is against us, but we have the engines and boilers well closed, with the view of economiaing fuel; our consumption of coal at present for the 70 inch pumping engine, with steam-whim and captain, smithery, &c., is about 50 tons per month."

SOUTH WHEAL CROFTY.—At the meeting on Tuesday the ac-

and capstan, smithery, &c., is about 50 tons per month."

SOUTH WHEAL CROFTY.—At the meeting on Tuesday the accounts showed a debit balance of 1,591/19s. 1d. Captains Thomas. Johns, and Jory reported upon the various points of operation. Mr. E. H. Rodd, the purser, reported that they have had with their neighbours the disadvantage of contending against high prices of labour, materials, and especially coal, which have greatly interferred with a favourable statement of figures. The greater portion of their extra expenditure in machinery has reference to the stamps department of the mine, and the operations in preparing the floors for dressing and returning the tin. The future cost of the mine will be considerably reduced, and a larger return of tin may be fairly calculated upon. The present stamps with 44 heads are only sufficient to stamp the tin which is at present raised with the copper. There is not a single tin stope working for tin only. To meet this it is intended to attack two more axles on the other side of the stamps, which he finds can be done at a small cost, the engine, machinery, &c., being already built and paid for. When this is done they may expect larger returns.

GOBBETT.—At the meeting of shareholders, already referred to in

cost, the engine, machinery, &c., being already built and paid for. When this is done they may expect larger returns.

GOBBETT.—At the meeting of shareholders, already referred to in the Mining Journal, Capt. Richard Veale reported that he had fully and perfectly repaired the water-wheel, which works admirably; also built up the end of the wheel-pit, erected the balance-bob, and commenced and nearly finished sawing-pit and shed for workmen. The stamps of four heads, on Walker's patent system, are fixed in a solid bed of granite rock 2½ ft. deep, 6 ft. long, and 1 ft. broad, bound in closely with boiling time, which had proved most efficient, and he had the satisfaction to state that the stamps work well. He had also put in hand-buddles, built the walls for the round buddles in readiness for the eastings, which, although ordered since November last, have not yet been delivered, but are positively promised this week. He had also made the slime-pit, and cut a leat to carry off the top water arising from the floods. The dressing-floors were also commenced, and will soon be finished. He had set the stamps to work in crushing the surface stuff, and forwarded sample of tin therefrom, and the large quantity of burrows stuff at surface, and the arrival of the necessary materials to complete the round buddles would enable him to keep the stamps fully employed, with a highly satisfactory result.

CHANS SILVER-LEAD MINING COMPANY.—A general meeting of

stamps fully employed, with a highly satisfactory result.

CHANS SILVER-LEAD MINING COMPANY,—A general meeting of this company was held at the offices, Cannon-street, on Wednesday, which was numerously attended (Mr. Forsyth in the chair). The reports and financial position of the mine having been duly discussed, and opinions of perfect confidence in the undertaking expressed, Mr. Kimber (Kimber and Lee) concisely stated the object of the meeting, which was principally to issue the unallotted shares of the company to the extent of 10,000, experience of the company fully authorising the management to carry on the works with the greatest energy. A long discussion the nesued, in which Mr. Kimber, Prof. White, Messrs. Terry, Spargo, Snell, Forsyth, Dr. Philott, Mr. King, and others took part. After considerable discussion it was resolved that the sum others took part. After considerable discussion it was resolved that the sum of 10,000% be immediately raised by issue of preference shares of 3% each, such shares to receive a dividend of 10 per cent, prior to any dividend on the capital already subscribed, and that afterwards nil profits shall be equally divided between the former and new shareholders, such stock to be out of the unissued capital by which such shares should be created, if the mine in its development warranted such issue. The results of the works fully instity the directors in this proceeding. A conversation then followed, in which Mr. Spargo suggested that Mr. Russel, who perfectly well knew the merits of the property, the customs and language of the country, well knew the merits of the property, the customs and language of the country well knew the merits of the property, the customs and language of the country well knew the merits of the property, the customs and language of the country well knew the merits of the property the customs and language of the country well knew the merits of the property the works had been erriced to S. Whitehall, as being more eligible for the majority of the shareholder CHANS SILVER-LEAD MINING COMPANY .- A general meeting of

'For remainder of Meetings see to-day's Journal.]

Registration of New Companies.

The following companies have been duly registered:-

The following companies have been duly registered:—

CANADA TANNING EXTRACT COMPANY (Limited).— Capital 100,000., in 5t, shares. For the acquisition of the business of Mr. 8. Foley, of Lindsay, Victoria, manufacturer of tanning extract and other productions from bark. The subscribers (who take 50 shares each) are—J. F. Harrison, 86, Cornwallgardens, W.C.; J. Challis, Wilson-street, E.C.; W. F. Fry, 17, 8t. James's-place; J. M. Stuart, 14, George street, Mansion House: James Foley, 5, Barge-yard, E.C.; and John Elim, 4, Great Winchester-street-buildings.

WILSON BUNSTER'S AERIAL TRANSPORT COMPANY (Limited).—Capital 10,000t, in 1t, shares. Established for the purpose of taking out patents for improvements in the apparatus used for the conveyance of passengers and goods by means of an aerial tramway. The subscribers (who take one share each) are—Andrew Gray, I. Lime street square; C. Harcourt, 8, Woodgate-street; J. S. Thompson, 40, Cromwell road; W. T. Southcott, 85, Cheapside; W. Sheppard, Canterbury-road, West Croydon; E. G. Sullivan, Patterson-street, Bow; and W. Stopherd, 4, Harley-place.

PATENT URBAN MANURE COMPANY (Limited).—Capital 12,000t, in 5t, shares. For the manufacture of manure according to a process known as

in 5/, shares. For the manufacture of manure according to a process known as Manning's Patents. The subscribers (who take one share each) are—W. H. Duignan, Rushall Hall, Staffordshire: L. Winterbotham, Rushall; T. Stanley, Walsall; F. C. C. Ritson, Worcester Park, Cuddington; R. B. Luis, Walsall; and A. S. Ritson, Worcester Park. ter Park

ECONOMICAL FUEL COMPANY (Limited).—Capital 15,000l., in 1/,

Worcester Park.

ECONOMICAL FUEL COMPANY (Limited).—Capital 15,000L, in 1L, shares. Formed to acquire letters patent for impravements in the manufacture of artificial fuel. The subscribers are—G. Hobson, Hyde-park-road, Leeds, 50; J. W. Smith, Leeds, 50; J. Micholson, Leeds, 100; G. A. Woodhead, Leeds, 50; J. Woodhead, Leeds, 50; J. Routh, Leeds, 26; and T. B. Colmick, Leeds, 50.

PENTEWAN RAILWAY AND HARBOUR COMPANY (Limited).—Capital 30,000L, in 5L shares. To acquire the Pentewan Railway and Harbour, &c. The subscribers are—E. Martyn, St. Anstell, 1: T. Lark, 12, Leadenhall-street, 1; W. Tuthroy Tregoose, Cornwall, 1; W. Heap, Haugh, Lancashire, 20; J. A. Pettis, Surbiton, 5: L. Young, 69, Cornhill, 1; and R. Bayman, Westbourne-terrace, W., 5: L. Woodh, 69, Cornhill, 1; and R. Bayman, Westbourne-terrace, W., 5: L. Woodh, in 5L shares. For the purpose of carrying on business as dealers in drugs and chemicals. The subscribers are—H. G. Hamilton Fairiight, Selhurst, 40; W. F. Richards, Armyand Navy Club, 40; J. F. Drake, Junior United Service Club, 40; A. O. Richards, Junior Army and Navy Club, 40; S. E. Collis, Westbourne terrace, Rayswater, 40; J. P. Pennelather, Fortman-square, 40; and N. Learoyd, Camden Park, Tunbridge Wells, 20 slares.

HEPBURN ALUM AND ALKALL COMPANY (Limited).—Capital 100,000L, in 10L, shares. To maunfacture alum and various other chemicals. The subscribers (who take 10 shares cach) are—C. N. Johnson, Newcastle-on-Tyne; S. Londsdale, Newcastle-upon-Tyne; N. G. Lunge, South Shields; W. Johnson, Newcastle: Henry Bell, Newcastle; and J. Knowles, Nuneaton.

THE FOREIGN AND COLONIAL ESTATES EXCHANGE AGENCY (Limited).—Capital 25,000L, in 10L shares. To negociate for the investment of capital on commission upon or in landed property. The subscribers are John Walcett, Spa, Gloucestershire, 10 shares; G. A. Acklow, Cheltenham, 10; Walter Slater, Carlisle, 10; B. Call, Maidenhead, 10; J. B. Hardy, 16, Edith-Grove, West Brompton, 10; O. Deacon, 150, Leedenhall-teret; and W. Jones, 34, New Bridge str

BANKERS' DISCOUNT ASSOCIATION (Limited).—Capital 2,000,000/... OAN ARREST DISCOUNT ASSOCIATION (Hinteet), Capture 2,000,804.

All three This company is formed for the purpose of carrying on the business (sessrs. Gillett Brothers and Co., bankers, &c., of 72, Lombard-street. The first le is to be 10,000 shares, of 50/, each, fully paid. The subscribers are—Alfred lett, 60, Eaton-square, 800; W. Gillett, 20, Belgrave-square, 800; Chas. Gillett, 20, Belgrave-square, 800; Chas. Gillett, 20, Belgrave-square, 800; Chas. Gillett, 20, Belgrave-square, 800; W. Gillett, 20, Belgrave-square, 800; Chas. Gillett, 20, Chas. Gillett, 20, Chas. Gillett, 20, Chas. Gillett, 20, Chas.

Wood Green, near Banbury, 100; George Gillett, 314, Camden-road, 300; Thos. Aggs, The Cedars, Stamford Hill, 100; B. Gibbins, Bussell-square, 100; and T. S. Gillett, Highgate, 10.

ETLAND ROAD WORTLEY FIRE-CLAY COMPANY (Limited).—
Capital 10,000., in 50. shares. To carry on business as mine and colliery proprietors. The subscribers are—R. Briggs, Leeds, 50; T. S. Derham, Leeds, 50; H. W. Blackburn, Leeds, 100; W. Lyndy. Starbeck, 40; Alfred Cotton, Leeds, 50; H. W. Blackburn, Leeds, 50; and C. J. Hill, Hull, 50.

LITTLEDEAN WOODSIDE COAL COMPANY (Limited).— Capital 25,000/., in 5. shares. For the purpose of working collieries in the Forest of Dean. The subscribers are—E. Crawshaw, Abbots Wood, Gloucestershire, 500; G. Morgan, East Dean, 1; T. Smith, Cindeford, 1; G. F. Morgan, East Dean, 1; G. W. Woods, Newnham, 5; H. R. Luckes, Newnham, 5; and F. Nash, Newnham, 5.

THE CONEY COAL AND FIRE-CLAY COMPANY (Limited).— Capital 10,000/., in 50/. shares.

THE CONEY COAL AND VANCE AND THE LATH AND VENEER-CUTTING COMPANY (Limited).—Capital 50,000, in 60, shares.

THE LATH AND VENEER-CUTTING COMPANY (Limited).—Capital 50,000, in 46, shares. Formed to purchase certain patents to be applied to woodentting, &c. The subscribers (who take one share each) are—E. C. Gordon, The Lodge, Kidbrook Park; G. Innes, 16, Mariboro'-villas, Richmond; H. Stephenson, Newmann's-court, Cornhill; W. J. M. Rayner, So, Pall Mall; J. Rayner, Bedfordrow; C. M. J. Dagnall, Peckham; C. Du Pre King's Cliffe.

NEW ESTATE AND HOUSE AGENCY COMPANY (Limited).—Capital 25.000., in 104, shares. Formed for the purpose of doing business as auctioneers,

VICTORIA HORSE REPOSITORY (Limited).—Capital 25,000l., in 5l. hares. To take over a business in Ebury-street, Pimlico.

EAST HENDRE LEAD MINING COMPANY (Limited). — Capital
5,000l., in 1l. shares: To carry on mining operations at Hendre. The subscribers
re—Thomas Gee, Denbigh, 500; R. Pavin, Denbigh, 100; U. Bromley, Chester,
100; H. Simpson, West-place, Lancaster, 100; Enoch Lewis, Mostyn Quay, 150;
1 Lloyd Rhydmwyn, 5); C. R. Liversedge, Mold, 50; and E. Lloyd, Hendre, 50.
PAWSON AND COMPANY (Limited). — Capital 400,000l., in 10l. shares.

For the purpose of taking over the business of Messrs, J. and F. Pawson, of St. Paul's Churchyard. The subscribers (who take 200 shares each) are Henry Honey Deliness effects. Raywater: W. H. Paul's Churchyard. The subscribers (who take 200 shares each) are—Henry Honey 28, King street, Cheapside; J. C. Young, 7, Princes street, Bayswater; W. H. Williams, Coleman street, E.C.; W. H.dl, 51, Old Broad-street; Thomas Phelps Gresham-street; J. Hall, 7, Staining lane; and A. J. Mundella, M. P., 11, Elwastone blace, W.

GENERAL AGRICULTURAL, COMMERCIAL, AND INDUSTRIAL COM-GENERAL AGRICULTURAL, CONSTRUCT, S. C. STARTS, C. STARTS, C. STARTS, TOWN OF THE PANY OF BRAZIL (Limited).—Capital 2,000,000′, in 10′, shares. Formed for the purpose of promoting emigration, and generally developing the resources of Brazil The subscribers (who take one share each) are—M. Franzila, Guilford Lodge, Loats road, Clapham: Edmond Gautron, 15, Holland-crescent, Brixton; H. Hughes, Hughestreet, Eceleston square: R. O. Benson, Guildford Lodge, Clapham-park Edward Boulton, Southsea; J. H. Boulton, H.M.S. Revenge; J. C. Pearse, Brixtonia.

NEWPORT ABERCARN BLACK VEIN STEAM COAL COMPANY (Li-NEWPORT ABERCARN BLACK VEIN SPEAM COAL COMPANY ed).—Capital 150,0004, in 10% shares. For the acquisition and working of us in the county of Monmouth. The subscribers (who take 100 shares on—John Cory, Cardiff; T. Beynon, Newport; J. Holman, 6, Cosby-square Bowden, 34, Leadenhall street; H. C. Raikes, M.P., 85, Onslow-square; I wards, 53, York Terrace, Regent's Park; H. R. Evans, Newport.

COLLIERY MANAGERS, AND THE COAL-MINES REGULATION ACT.

At a meeting of the South Midland Institute of Mining and other Engineers at Wolverhampton, on Monday, the Mines Regulation Act was debated, after the realing of a paper on the subject by Mr. J. W. Hall, solicitor and mine proprietor. Mr. Hall drew attention to the power which was given to the Home Secretary to decline to grant a certificate to a manager without giving the reasons upon which he refused the application. Speaking from his own experience, Mr. Hall said that a gentleman who, having applied to the Home Office, received in reply a letter of regret, requested him to ask the Home Secretary to reconsider his case. He (Mr. Hall) did so. The gentleman in question, after a service of about 18 months with a mining engineer and colliery proprietor, entered in the year 1863 as a student in the Government School of Mines, and continued there for three years, and he held certificates from Mr. Warington Smyth for "mining and mineralogy;" Mr. Robert Willis, for "ap-Smyth for "mining and mineralogy;" Mr. Robert Willis, for "applied mechanics;" Mr. Rumsay, for "geology;" Professor Hofman, for "chemistry;" and Professor Tyndal, for "physics." He was afterwards engineer at a colliery for over fifteen months, laying out the workings and making out the plans, and controlling and ordering the mining operations both above and below ground. He was then for about nine months a colliery viewer, having under him was then for about time months a context viewer, any fitner in an underground manager; was then mineral agent and viewer for another colliery for two years, and since, and for the last two years and a half, had been manager of a department of a mining concern of such magnitude that its supervision was parcelled out into four distinct departments, with as many managers, each such manager in regard to his own department having the control above and below, laying our reads making plans, arranging ventilation, and giving regard to his own department having the control above and below, laying out roads, making plans, arranging ventilation, and giving the necessary orders. He was subordinate only to a gentleman who held a position analogous to that of "agent," as defined by the recent Act. To him (Mr. Hall) his client seemed to have two distinct qualifications—I, The having for a period twelve months during the five years before the Act acted in the capacity of manager of a mine within the Act, and 2, that before the passing of the Act he was acting, and had since acted, in the like capacity for such "part of a mine" as could, if the Act had been in force, have been, for the purposes of the Act, constituted a separate mine under sect. 25. To his (Mr. Hall's) application a letter was written by Mr. Liddel, stating that "Mr. Bruce having made enquiries into the circumstances, regretted that he must still adhere to his former decision." To a further communication seeking for information as to the grounds of the objection, conjecturing reasons, and offering to furnish furfurther communication seeking for information as to the grounds of the objection, conjecturing reasons, and offering to furnish further data, or otherwise to meet the requirements of the department, and written a fortnight ago, no reply had yet been received. Such refusals as he had here drawn attention to had an aspect of arbitrariness. It was the more to be regretted because, inasmuch as from the 3000 collieries in the kingdom some 5000 applications for managers' certificates must have been made between the beginning and the end of December, it was impossible for either the Home Secretary or Assistant Secretary to give any mental consideration to any one of these applications.—The PRESIDENT (Mr. E. Jones of Lilleshall) said it would be impossible for the managers to be found to work the mines. Already the Government had rejected 75 per cent. of the applications.—Mr. Hall promised to take up the subject again at the next meeting.

Self-Extinguishing Safety-lamp,—We have during the past week examined an improved safety-lamp for miners, the object of which is to prevent the possibility of the flame being exposed in an explosive atmosphere. The lamp is highly finished, and altogether a well-made lamp, yet it is, we understand, to be brought into the market at a lower price than the ordinary Davy, and at less than three-fourths the price of any other self-locking or glass-sided lamp. The lamp in question has the wick-holder so connected with the locking bol, that when the bolt is screwed down to permit of the removal of the cap the wick is drawn into the wick-tube, and the fame thus extinguished. To facilitate the rapid closing of a large number of lamps, the locking-bolt is fitted with a string, and the nucleristic of the lamp cover is provided with a ratchet, which presses down the bolt when being screwed on, but cannot pass back to nuscrew. It has often been remarked by persons well able to form an opinion that there were many objections to the old lamp which interfered with its usefulness. It gave too little light, and it was easily opened. In consequence, the miners, a proverbially reckless class, in order the better to see their work, or even simply to obtain a light for their pipes, were constantly tempted to remove the protecting game and expose the naked flame. This practice has been checked, no doubt, by putting a look upon the lamps. It has been found, however, that even when this is done the lamps can be tampered with. The flame can be made to strike against the wire-gauze in such a way as to enstantly done, fearful as the risk \$\frac{1}{2}\$. If has been said that no explosions from fire-damp could occur in mines if the safety lamp were properly used; and yet the number of deaths arising from such accidents still amounts to about 300 a year. What is wanted is a lamp which will give more light, which cannot be opened, and which cannot be heated by its own flames on situation of the safety lamp were properly used; and yet the mumbe SELF-EXTINGUISHING SAFETY-LAMP.—We have during the past occuring in mines are chiefly attributed. The apparatus seems strong, little likely to get out of order, and altogether well adapted for the rough usage to which a miner's lamp is likely to be exposed. It is much more expensive than the forms of the lamp now in general use, but Mr. Yates states that the saving of oil effected by it use will in one year pay the additional cost.

A YEAR'S STEAM-BOILER EXPLOSIONS.—Mr. E. B. Marten, the chief engineer of the Midland Steam-Boiler Inspection and Assurance Company, presented his annual illustrated report, at the 22d half-yearly meeting of that company, in Wolverhampton. It showed that the number of boilers which exploded during 1872 was 58, killthat the number of botters which exploded during 1014 was 52, Ami-ing 37 and injuring 114 persons; but, as in former years, the records include other explosions of the apparatus or fittings closely connected with beilers. Thus the aggregate is brought up to 74 explosions, causing 50 deaths and 137 cases of injury. About half the number killed were either the owners, managers, or men directly responsible for the boilers. The greater part of the remainder were those y. About half the number killed were either the owners, managers, or mer responsible for the boilers. The greater part of the remainder were those del about the works, and a few others were strangers or passers by. The number of explosions have taken place, as in former years, at collieries or ks, but with much less fatal results. The most fatal cases have been either needs of the strangers usual number of casualties to steam pipes and fittings. Plain cylinder boilers, externally fired, and Cornish or Lancashire boilers internally fired, have burst in about equal number. The explosions generally have confirmed the off-repeated converted in that no boiler, however good when new, is afe without periodical inspection. Nothing further, it was pointed out, had been done towards boiler legislation, and "it appears (will the report) the general opinion that it would be better to enourage boiler owners in every way to take proper precautions for themselves, or by means of companies formed for the purpose, than by Government inspection, which might relieve their responsibility without substituting any real safegnard."

HOLLOWAY'S OINTMENT AND PILLS—SA CHEMICALS AND MINERALS,—Meastrs, R. R. Kelly and Co., Manbout equal to the control of the strength of the collecting than the cold strengthens", watch, if he would retain or recover his health. This conviction that no boiler, however good when new, is afe without periodical inspection. Nothing further, it was pointed out, had been done towards boiler legislation. Sci., ammonia, carbonate, 7½d. to 7½d.; muriate, 32½; sulphate, white and grey, it is a possible of the would retain or recover his health. This (5.2 summonia, carbonate, 1½d. to 1½d.; to 10½; summonia, carbonate, 1½d. to 1½d.; to 10½d.; to 10½d.;

lose of 1872, there were 3285 boilers under the care of the company, and that the number had since been increased. There had been two slight and one serious explosion among the assured boilers during the past half-year, but without injury to myone. There was no explosion among the boilers under the company in the first half of the year 1872. An explosion, slight in itself, but causing two deaths, occurred o one boiler under inspection. All these boilers were used at ironworks. Upon the fuel question, the engineer's report said that there was no better way to set bout improvement than to ascertain correctly what was being done by the engine and boiler reepectively, and which was most at fault.

PRESENTATION TO MR. J. H. COLLINS, F.G.S.

A large number of members from the different classes of the Miners' Association met at St. Day, on Monday evening, to present their late Teacher, Mr. J. H. Collins, with a very beautiful Spectroscope, in recognition of his many acts of kindness to them whilst Lecturer of the Association. Besides the numerous representatives of the classes, there were present the Rev. Saltren Rogers, and Dr. Bannister, Messrs. James Tregoning, John Beale, Scorrier: Richard Green, Trearth: George Michell. e were present the Rev. Sattren Rogers, and Dr. Balmister, atsesses, se Tregoning, John Beale, Scorrier; Richard Green, Trevarth: George Michell, Michell, John Edwards, Theos. Michell, J. Tippett, F. Terrill, Capt. J. Jewell, S. Whitburn, St. Day. George Bray, Redruth: Edwards, J. Williams, James un, Carharrack; Capt. J. Blight, Poblice Mines; Alfred Jeffery, Camborne; sins, Gwennap; Charles Bawden, Poblice; John Barnett, Chagewater; and al other gentlemen and ladies. Letters excusing absence were received from F. Coats, St. Just; Mr. B. Kitto, Lecturer of the Miners' Association; Mr. W. II, Great Wheal Vor; Mr. John Gill, Helston. The Rev. Saltren Rogers read ollowing address:—

several other gantlemen and halles. Letters excusing absence were received from Capt. F. Oats, St. Just; Mr. B. Kitto, Lecturer of the Miners' Association; Mr. W. Argail, Great Wheal Vor; Mr. John Gill, Helston. The Rev. Saltren Rogers read the following address:—
To J. H. Collins, Fellow of the Geological Society, Secretary of the Royal Cornwall Polytechnic Society, Honorary Assistant Secretary and late Lecturer of the Miners' Association of Cornwall and Devon, Esquire.
We, the members of the classes of the Miners' Association of Cornwall and Devon, beg you to accept this humble testimony of our respect for you, as an expression of our very warm appreciation of the unwarying kindness you have manifested towards as whist Lecturer of the Association.
The desire to recognise your services was felt in several classes, and would have been carried out independently, but when it became known that similar steps were being taken in different classes, it was thought best to act unitedly in the natter. We do not, by any means, intend this as a mark of esteem for your intellectual qualification; this would be needless, as your connection with men, the most eminent in science; your success as an author; and your labours as secretary, both of the Royal Cornwall Polytechnic Society and the Miners' Association, have already given you far more than a county name.
Our object in making this presentation is to mark, not only our high sense of the liberality and kindness which you have always shown to the classes generally, in the performance of your duties under the Association, but also our gratitude for the many acts of personal kindness to the members individually. You have frequently gone beyond the requirements of your office in your great kindness to the classes, and many amongst us result, with the most sincere gratitude, numerous instances in which you have, both in connection with and apart from the Association, inconvenienced yourself to render us a service. As a teacher we have always found you to prefer our advancemen

PHYSICAL GEOGRAPHY. -The fourth number of Macmillan's "Science Primers" consists of an admirable little treatise upon Physical Geography, by Prof. Archibald Geikie, LLD., F.R.S., Murchison-Professor of Geology and Mineralogy in the University Murchison-Professor of Geology and Mineralogy in the University of Edinburgh. From the very popular and attractive style in which Prof. Geikie writes the volume will prove very generally acceptable, and so large an amount of information is given that it would be difficult to obtain an equally satisfactory outline with the same facility from any other source. Commencing with the supposition that a rainy summer stay has produced streamlets of muddy water beside the sloping roadways, and that these streamlets have run together, and thus augmented in volume until they have swelled the neighbouring river, changing it from an almost silent brook to a rushing torrent, he shows how even these simple forces represent changes which by continuance or enlargement produce a visible effect upon the surface of the earth. The streamlets not only exert their power in the removal of leaves and twigs, but the inspection of a glass of the turbid water when left at rest proves that this same small stream is able to convey material which, upon being allowed time to become compactly fitted together, constitutes the solid rocks which form large portions of our hills and mountains. The causes of other physical changes are explained in an equally popular manner, until, by the time the 110 pages have been perused the reader will have acquired as fair a knowledge of the subject as he will, probably, desire; and, as the volumes are issued at a merely nominal price, there is nothing to prevent their being studied by all classes.

NEW MINING MAP.—A map of much importance and utility will it is announced, be immediately published by Mr. Spurgo, who has obtained considerable notice for his orographical productions, and the information which has given to the public by his treaties on geological and mineralogical subjects. The map nowabout to be brought before the public will prove to be one of the most important of Mr. Spargo's publications. It will comprise not only the geology are mineralogy of the mining districts, but will be a well-marked topographical delineator of them all; in fact, presenting the physical features peculiar to those districts at a glance to the eye of the student. Mining is no longer an empyrical profession, it is a science, allied in the closest manner to geology and chemistry, and bringing into view astro-chemical science. Much has been written on all these topics, but the desideratum has been clear, well-defined rographical representations, marking attitudes, topographical peculiarities, and all matters interesting te miners by well-defined colours. The colouring in the present publication will be so various and well-defined as to enable the observer to mark at once all the distinctions of the places delineated. This map will constitute a standard reference for all persons about to embark in home mining adventure, for mining captains agents, and engineers, and for the writers of county or local histories. It is so in geniously designed and accurately drawn that it may be consulted without apprehension of mistake, and with the certainty of finding with facility any information that a map can possibly afford.

Directly, Fig. 27.—We have again bad a very limited husiness. NEW MINING MAP. - A map of much importance and utility will,

DUBLIN, FEB. 27.—We have again had a very limited business DUBLIN, FEB. 27.—We have again had a very limited business doing in Irish Mine Shares all the week, in fact very few dealings have been recorded, and the market, on the whole, looks rather weak in character. Berelaven shares are rather firm at 41s.; sellers at 41s. 6d. Cape Coppers are rather fint, and have declined ½, and left off wather dull. Killalos Slate shares have been dealt in to a limited extent at 18s.; the meeting of this company is called for March 12, to declare a dividend. Mining Company of Ireland shares are rather depressed, and have declined ½. Wicklow Coppers are in good demand at last prices; the fact of so many of those shares having been oversoid, and not yet delivered, keep up the price. A deposit of 11. per share is payable on the new issue on Saturday next, and 3cs. on allottment; already some dealing have taken place in them at ½ to ½ prem.

From Mr. M. W. Bawden (Liskeard):—Market dull and inactive; most stock being offered at reduced prices with a searcity of buyers. Transactions have been principally confined to a few of the leading tin mines. The decline on last week's sale of ores on the standard, with the Chilian advices and arrivals, has caused a depression on all shares in copper mines. At South Caradon Mine meeting, on Tuesday, a dividend of U. per share was declared. The increased charges on account of coals during the quarter has made a reduced difference of 1. per share on the dividend made. The metal market for lead, tin, and zinc keeps firm, in the propability of still higher prices being obtainable. Closing prices—Bedford United, 10s. to 11s.; Brookwood, 7t. to 7t. 5s.; Cargoli, 7t. 15s. to 8t.; Carm Breat, 150t. to 162t. 19s.; Cook's Kitchen, 17t. 10s. to 18t.; Devon Consols, 7t. 15s. to 8t.; Delocath, 6d. to 65t., East Caradon, 2t. 17s. 6d. to 4t.; Gawton United, 2t. to 2t. 2s. 6d.; Glasgow Caradon, 2t. to 2t. 2s. 6d.; Herodisfoot, 10t. to 10t. 10s.; Hingston Down, 8t. 19s. to 8t. 15s.; Marke Valley, 4t. 5s. to 4t. 7s. 6d. Mary Ann 7t. to 7t. 10s.; New Pembroke, 2t. 2s. 6d.; Col. 5s.; Old Treburgett, 17s. to 18s.; Prince of Wales, 11s. to 12s.; South Caradon, 197t. 10s. to 200t.; West Maria, 1t. to 1t. 2s. 6d.; West Chiverton, 18t. to 14t. 10s.; West Phoenix, 11t. 10s. to 12s.; Wheal Crebor, 4t. 5s. to 4t. 10s.

From Mr. W. H. RULE (Camborne): -The Mining Market throughout the week has been very steady, and, with one or two exceptions, the late advances in prices has been firmly maintained. The chief feature of the week has been the decline in the price of 8 outh Frances shares from 21 to 15, sellers, attributable to the fact of the dispute with West Frances not having been settled at the meeting on the 21st inst. Shares in both mines are at present very weak, and unless the boundary question is speedily settled a rise cannot possibly be expected for some time. The following are the closing quotations:—Carn Brea, 150 to 155; Cook's Kitchen, 16½ to 17½. Dolcoath, 65 to 66; it is expected the water will be forked from the bottom of the mine by the latter part of next week, and a further rise in price of shares may, therefore, be looked for. East Basset, 30 to 32. East Pool, 13 to 13½; very quiet. New Rosewarne, 3 to 3½; Swoth Carn Brea, 4 to 4½; South Crofty, 55 to 66; South Condurrow, 7½ to 8; South Cacoath, 9½ to 16½; South Frances, 16 to 17; St. Ives Consols, 15 to 16; Tincroft, 58 to 53½. West Basset, 13½ to 14; but little business doing in these shares. West Frances, 13½ to 14½; West Seton, 38 to 10; West Tolgus, 42 to 44; Whall Seton, 55 to 57; Wheal Basset, 60 to 70; fluctuating very much. een very steady, and, with one or two exceps been firmly maintained. The chief feature the price of South Frances shares from 21 to of the dispute with West Frances not having t inst. Shares in both mines are at present v

siate, 3s. ld.; yellow prussiate, 1s. 6d.; tartrate (cream of tartar), saltpetre, 29s.; soda salts, acetate, 39¢.; bi carbonate, 18k. 10s. refined, 105s.; soda ash, 48 to 32 per cent., 3½d.; soda crystals, cream, 69 per cent., 23½, 5s.; white, 23½, 15s. to 24½; 70 per cent. nitrate, 16s. to 16s. 6d.; sulphate (Glauber salt), 4½; sette a Minerals; China clay, 28s. to 29s.; phosphate of lime, ordinary, 90 per cent., 1s. 6d.; Bolivian, 6f. 5s.; Estremadura, 18; 6d.; 4k. 2s. 6d. U.K., and 6¢. 5s. to 7k. Continent, 70 per cent.; chrome copper ores, 15s. 6d. the unit; iron ores, red hematites, British, ish, 22s. to 25s.; clayironstone, 12s. to 18s.; collite, 7s. to 9s. 6d. 60 per cent., 6d. the unit; manganese ores, 70 per cent., 136s.; cupreous, 8½d.; noneupreous, 10d. the unit.

STANNARIES COURT—IMPORTANT CASE.—In this Coday, a case was heard in which Mr. Robert Sargent, of Callington, experte order nois for an injunction to restrain Capt. Richard Pryform further prosecuting certain works in a close of land chaimed to of the applicant. Mr. J. R. Paull appeared for the applicant, S. Marrack for Pryor, who was, in fact, representing the Vest Great Company (Limited), who are working very extensively a valuable Duchy, in the parish of Blokeclimsland, near Callington. Mr. Capt. Pryor, and two other agents of the mine, to show that no peculial neare to Mr. Sargent's land from the operations compain vice-Warden ultimately discharged the order, and intimatel that sider whether he would give costs to the company. His Honour statement that he was quite satisfied that no damage had accuracy, or c Mr. Sargent's land from the operations of the company.

St. Stephen's Tin and Copper Mines (parts on this property are extremely flattering, notwith to be true; and the discovery recently made in the Focesarily very materially enhance the value of the 8t. State of the Great Hewas caunter lode traversing the entitle inctions and intersections we invariably find the 1the rich tinstones taken from the Strawberry part of the assay 288 lbs. to the ton of stuff, must be regarded as excluded the state of Sr. Stephen's Tin and Copper Mines (St. Austell) Stephen's Mines. It is one of the best properties in this, all that can be desired in a geological and mineralogical per clay-slate, is highly impregnated with the oxide of iron more particularly associated; it is commonly eatly for the west direction for many miles, and in which our best fin per The ground is traversed by cross sources and elvans, var composition, all of which, more or less, excet a favourabl with which they come in contact. The discovery of the I tescue property is a striking evidence of this, and too m tached to this fact. The further importance of it will be continues to be developed, and we are pleased to hear that dome. The execution of the necessary machinery will be at c dime. The execution of the necessary machinery will be at c all the appliances and apparatus for tin-dressing on the m mical principles will be had in requisition, and all matters upon a fair, homourable, and legitimate basis.

GREAT WESTERN MINES (near Marazion).—7

GREAT WESTERN MINES (near Marazion).-Thes wheat western Mines (near Marazion).—The turned out the prize anticipated, and the whole of the mai made markestable and the tin leavings on the mine, were often, in one lot, on Tuesday. The bidding commenced by Tuth, offering 4500t. This was further advanced by Mess 4550t. Mr. Lanyon bid again 4500t., and Messrs. Harrey a last and best bidders. They were not, however, sold, as 15000t. After this the materials were put up without the offered 4000t, but, there being no other offer, they were b for 5500t.—West Britton.

THE TIN MINES OF MISSOURI.—The newly-located to Missouri have been inspected and reported on by Profess Shepherd, who states that for more than 20 years he has lieved in the existence of tin in the well-defined quarter Madison county. He has not hesitated to declare this car just as he did 26 years ago the existence of a tin region only just as he did 26 years ago the existence of a tin region of Lake Superior against book geologists of that day, the occurrence of oxide of tin associated with silver-lead, ruby silve fluor spar in certain mines in Cornwall and Devonshire, and to the ward of Tavistock, in 1848, there was found a wall, or dyke, of trap that yielded a small percentage of tin, and was worked for the mentions that in Madison county, Missouri, there may be seen walls, of trap and greenstone in connection with the porphyrisman these he does not think any profitable amount of tin will be obspice of labour rules as high as at present; but to succeed in obtains a subspice of labour rules as high as at present; but to succeed in obtains a subspice of labour rules as high as at present; but to succeed in obtains a subspice of labour rules as high as at present; but to succeed in obtains a subspice of labour rules as high as at present; but to succeed in obtains a subspice of labour rules as high as at present; but to succeed in obtains a subspice of labour rules as high as at present; but to succeed in obtains a subspice of labour rules as high as at present; but to succeed in obtains a subspice of labour rules as high as at present; but to succeed in obtains a subspice of labour rules as high as at present; but to succeed in obtains a subspice of labour rules as high as at present; but to subspice of labour rules as high as at present; but to succeed in obtains a subspice of labour rules as high as at present; but to subspice of labour rules as high as at present; but to subspice of labour rules as high as at present; but to subspice of labour rules as high as at present; but to make a subspice of labour rules as a

GOLD MINING IN AUSTRALIA—THE BENDIGO MINES resting summary of the progress of the district during 1872 Mr. J. lows that there has been a material improvement. In 1871 the jx 19,719 oz. 4 cwts., and in 1872 it was 354,747 oz. 4 dwts., showing GOLD MINING IN AUSTRALIA—THE BENDIGG teresting summary of the progress of the district during 18 shows that there has been a material improvement. In 18 \$79,179 02. 4 cwts., and in 1872 it was 354,747 02. 4 dwts., \$5,028 02., representing in money value 300,1122. The amounted to 434,2764., and the calls to 232,4214., leaving a be salls of 201,8554. In 1872 the dividends amounted to 68 \$90,3004., the balance of dividends over calls being 320,068/ balance in favour of 1872 was, therefore, 118,2124. The p to be excellent. Mr. Macariney predicts a great improve everything indicates an improvement in their gold return

RESCUING COLLIERS AFTER EXLOSIONS.—The SAMUEL BARTON, of Cannon street, relates to apparatus for enter noxious vapours with impunity. Acover or shield is peciose the nose and mouth and the adjacent parts of the face, cover he attaches a tubular pad of vulcanised India-rubber, fille metal cover is attached to a hood made of textil-material, coat The front of the hood is provided with eye pieces or goggles of further protected by tubular pads of vulcanised India-rubbe fixed on the inner side of the hood. For properly searing the the hood of the wearer he uses straps. The aforesaid metal of a three-way tap, with valves so arranged that the passage to it atmosphere may be opened or closed when desired. If this aj in connection with a bag or reservoir of pure air carried at the applies tubes of vulcanised India-rubber or other flexible and outlet apertures, to connect the same with the air-bag. It said apparatus connected with a portable air-reservoir or bag the inlet valve may be connected by a flexible tube to a fixed use a flexible pipe or tube long enough to extend beyond the Instead of being provided with any of the above contrivances of pure air, the said apparatus may also have the face cover p which permits the supplyfor air to be drawn directly from the sphere. This filter is filled with alternate layers of various at METAL BELT FOR WINDING.—Mesars, SCOTT, RESCUING COLLIERS AFTER EXLOSIONS .- The invention

phere. This filter is filled with alternate layers of various absorbed more absorbed more and the property of the state of the property of the state of the property of the state of the wire rope hibrary spension bridges, and other purposes. Instead of the wire rope hibrary selt or hand is made, composed of two or more layers of flat steel, durable the suitable metal, and of a thickness or breadth according to the property of t ilar brid

THE BARRON STEEL PROCESS,-Under this designation and THE DARRON STEEL PROCESS,—Under this dei of converting articles of cast-iron into steel has been durin carried out practically, and it is stated successfully, in the I version being effected with great rapidity, each charge of al ings not requiring, according to the account sent us, more minutes in the operation. The description received is very to it the articles, such as work tools of all kinds, are cast in s-placed in revolving drums, by which the hard outer surface, is worn off, and the castings themselves polished by the alt subjected to the action of oxide of iron, or other decarbun packed in layers in iron boxes closely covered with clay, in from three to six days, whereby they are converted into iro cess for making mulleable castings. They are now re-com-posing them in a large retort to the action of certain gaseous from three to six days, whereby they are converted into Iron, as in cess for making malleable castings. They are now re-converted in posing them in a large retort to the action of certain gaseous composite nature of which we have yet to learn, since as yet they have not be a full of the Iron and Steel Institute.

RAPID CURES OF SEVERE COUGH AND ASTHMA BY DR. PULMONIC WAFFER.—From Mr. Harrison, 286, Glossop-road, enstomers have expressed themselves highly gratified with the Dr. Loosek's wafers in asthma, coughs, &c. It was myself to cough, and was completely cured by a few wafers." Sold by all over hox.

HOLLOWAY'S OINTMENT AND PILLS-SAFETY A

ARCH

Royal

Royal School of Mines, Jermyn Street.

GEOLOGY-LECTURE IV.

Course of Lectures on "Lakes, their Origin, and Geographical and Geological Distribution" is being delivered on Monday evenings at the Geological man by Prof. RAMSAY, F.R.S., Director General of the Geological Survey

em by Prof. RAMSATA A.

be United Kingdom.

of RAMSAY, F.R.S., in his fourth lecture, treated on the "Salt of RAMSAY, F.R.S., in his fourth lecture I endeavoured to so of the Permian Epoch." In my last lecture I endeavoured to so the Permian Epoch." In my last lecture I endeavoured to so the Permian Epoch. The Prof. of the Prof. d also in America. For a similar reason to that rocks before referring to the Old Red Sandstone, history of the carboniferous strata before pass-strata were well known, and described by Prof. For paid an eloquent tribute to his memory, his pers of that evening), but the name was derived sia, where they are well developed. The arrangen the South of England, South Wales coal field, old Red Sandstone, then come certain shales to those a mass of nearly pure limestone, often maxine fossils. Then you come to about 1600 ft. mill-stone grit, so called because millstones are contains marine fossils, but now and then it s. Above that you come to the coal measures—s and shales, and numerous beds of coal, interest among the sandstones and shales. But when or into Scotland, you find this sort of arrange-es way up being gradual. Above the Old Relevant and shales, with a few beds of limestone, and get occasionally sea shells, and occasionally also we that are a great number of beds of limestone, and either the sold of old various thickness. Then of the millstone grit, and above that to the great beds of coal, and of the remains of land plants. Fructure of the coal measures we find that they

ins of land plants in considerable quantities, many of them be-ie genera, but not to the same species, as those of the coal mea-low the immediate proximity of land; and sometimes you find restrial reptiles in these strate, occasionally their skeletons, but in limber of cases their foot prints, as, for instance, those of Laby-s. They were truly amphibious, and their impressions on soft a time by the waters, were preserved when the waters again ce, and so the impressions remain to this day. Rain marks, too, and, and sun cracks, proving that at times portions of the mud-letter were truly and the strategies of the superior of the mud-letter waters.

found, and sun cracks, proving that at times portions of the mude.

estrata we frequently find beds of gypsum, or sulphate of lime, or ben deposited, as far as any man knows, in the sea; it is like the present, that all the arguments drawn from physical and chemical would tend to show that, having been in solution, it was denosited into the first state of the substitution of the water, that is by chemical precipitation. In addition to see is this great fact to my mind, that wherever von get Permian markthey are red; every grain of the sand or marl is surrounded by a persistent of the sand or marl is surrounded by a persistent of the sand or marl is autrounded by a persistent of the sand that the sand and the sand the sand the sand that the sand the sand that the sand that the sand and mud. I have no keep it is the sand and mud. I have no keep it is the sand and mud. I have no keep it is the sand and mud. I have no keep it is the sand and mud. I have no keep it is the sand and mud. I have no keep it is the sand and mud. I have no keep it is the sand and mud. I have no keep it is the sand and mud. I have no keep it is the sand and mud. I have no keep it is the sand and mud. I have no keep it is the sand and mud. I have no keep it is marked and and the sand is place taken by mud and as formed and there ervistals of rock salt, or rather the spaces where that it has been dissolved out, and its place taken by mud and and sand strat were not deposited in the onen sea, but were formed in few of the Permian times it have sand only to those salt lakes in which the Permian strata were desand warfed; and similar to that it he North Sea, but the and dwarfed; and similarly in those salt lakes of Asia and North

America, which I described in a previous lecture. And as I said in my papers to the Geological Society, if we want to understand what was the state of Europe and Great Britain during what geologists call the Permian epoch, we must go to Asia.

LECTURE ON COAL.

LECTURE ON COAL.

A lecture on the subject of Coal was delivered to a crowded audience by Mr. F. A. New, manager of the Joint Stock Coal Company, at the South Hampstead Collegiate School, on Wednesday. Mr. New, in introducing the subject, dwelt upon the many valuable properties coal possessed, and the horror people felt at the prospect of the supply fulling short, or failing altogether. He then explained the geological position of the carboniferous strata, and how much we are indebted to volcanic influence in elevating the coal-bearing strata, so as to render it accessible, which it would not be if in its ordinary position, covered by the newer strata. He then traced, by means of a geological map, the coal fields of Great Britain, and explained the various qualities of the coal they produced. He estimated their extent at not less than 5400 square miles, and said he thought that most probably there was much more under the Permean and New Red Sandstone strata. The Royal Commissioners, in their report estimated the quantity available for use at 146.489 millions of tons, and that there was sufficient to last 360 years, who would not send it up, and by the Mines Regulation Act, which limited the hours of labour for the boys, and consequently the men who worked with them. The influences he had mentioned, and the briskness of trade, gave the colliery, who would not send it up, and by the Mines Regulation Act, which limited the hours of labour for the boys, and consequently the men who worked with them. The influences he had mentioned, and the briskness of trade, gave the colliery owners the power of charging what they liked for their produce, and many of them had most unmercially applied the screen. He believed they had seen the worst of it for this season, and that a reaction would take place, or the trade would be driven out of the country. The origin of coal and that occumpanying strata was explained, and the botany of a coal mine fully entered into. Mr. New not only having diagrams thrown on the screen, but also f A lecture on the subject of Coal was delivered to a crowded audi-

THE MINERAL RESOURCES OF VIRGINIA.

Although many of the readers of the *Mining Journal* have long since acquired some knowledge of the mineral resources of Virginia from the communications of our esteemed correspondent—Mr. C. S. from the communications of our esteemed correspondent—Mr. C. S. Richardson—the information contained in the very interesting paper by Major Jed. Hofolkiss, of Staunton, Virginia, the Engineer in charge of the General Scientific Survey of Virginia, conducted under the anspices of the Washington and Lee University, read before the Society of Arts, will be no less acceptable, since it is, of course, more complete, and is brought down to a much later date. The Virginias are situated between 36½° and 40° N. lat., opposite Spain and Portugal, and the area is, in round numbers, 64,000 square miles, being some 6000 square miles more than that of England and Wales. The population, white and coloured, was 1,596,318, in 1860, and 1,667,177 in 1870. The territory of the Virginias is naturally divided into seven distinct belts of country, extending throughout it from southwest to north-east, parallel with the general trend of the Atlantic coast. These belts, taken in the order in which they succeed each other from the Atlantic north-west to the Ohio, are—Tidewater coast. These belts, taken in the order in which they succeed each other from the Atlantic north-west to the Ohio, are—Tidewater country, the Middle country, Piedmont Virginia, the Blue Ridge, the Valley of Virginia, the Appalachian country, and the Trans-Appalachian country. The mineral wealth of the Tidewater section is in its green sand and other marls that abound in all parts of it. There are some deposits of iron ore in various places, but their extent is unknown. tent is unknown.

ent is unknown.

The mineral resources of the Middle country are very great and duable. The edge of the belt is a granite rim, rising some 200 ft. above the tide-aters. This grey granite is of the very best quality for building purposes. Ocpaying basins or depressions in the granite are several coal fields, belonging to the ew Red Bankstone or Oolitie era, extending in detached oval masses from near ichmond to the south-west, the principal is the Richmond coal field, covering

The mineral resources of the Middle country are very great and valuable. The edge of the bett is a granite rim, rising some 200 ft. above the tidewaters. This grey granite is of the very best quality for building purposes. Occupying basins or depressions in the granite are several coal fields, belonging to the New Red Sandstone or Oolitic ers, extending in detached oval masses from near Richmond to the south-west, the principal is the Richmond coal field, covering some 150 square miles. In the part of this field upon the north side of James river five seams of coal have been opened, varying in thickness from 2½ to 8 ft., giving an aggregate of more than 20 ft., as at Carbon Hill. On the south side of theriver, at Middothi in, three seams have been opened, varying in thickness from 2½ to 8 ft., giving an aggregate of more than 20 ft., as at Carbon Hill. On the south side of theriver, at Middothi in, three seams have been opened, varying in thickness from 4 to 40 ft. making from 50 ft. to 60 ft. of coal (the sections show the location of the seams at each of the places named). One of the seams on the north side, from 2½ to 8 ft. thick, is a natural coke (the coal having been coked by the intrusion of a trap-dyke known as carbonite; the other seams are coking coals, highly bituminous. These mines are admirably located for commercial purposes, and the coals are highly commended by all that have used them. The other fragments of the Middie country coal field have not been developed, except in Prince Edward county.

Midway in the Middle country is a strip of land, from 15 to 20 miles in width, and running for 200 miles through the 8 tate; that has long been known as the "gold bett" of Virginia. The rocks of this belt are the slates, traps, steatites, &c., of the Primary, dipping at high angles, generally to the east, and striking with the belt. Interstratified with these are numerous veins of gold-bearing quartz, magnetic, hematic, and specular fron ores, and sulphurets of iron and copper. It may be safely asserted t

The slates of the whole Middle country are very excellent for all purposes, notedly those from its western border, along James river, in Buckingham, where they are extensively quarried for rooting, flagging, mantles, &c.; for marbleising they are considered the best known, and the slabs can be obtained of almost any required dimensions. In Fairfax county chromate of iron is found, and in Buckingham an extensive deposit of kyanite. Some of the rocks of this region furnish a grey or light-brown soil; this is naturally poor. Others, like the epidotes, which contain a marked amount of lime, furnish a dark and fertile soil. The sandstones of the imposed Middle Secondary are valuable for building purposes, as are also the "brown stones" of the Red Sandstone, which are extensively quarried at Manassas. The infusorial earth, so abundant at Richmond, is valuable as a polishing material. At various places in Piedmont Virginia mines of lead and barytes have been opened, and it is well known that there is an abundance of plumbago, manganese, and fire-clay; but the character of these has never been properly tested, except perhaps at Warminster, on the James, where extensive deposits of manganese have been opened. There are good slates, brick-clay, and limestone, and some building stones. The most valuable minerals in the district will probably be found to be the magnetic, micaceous, and specular ores of iron that are found interstratified with the formations, and in good workable seams. The want of mineral coal has prevented their use hitherto, and so no effort has been made to test the quantity of the ore, but now that the way is open for coal from the Kanawha fields these extremely rich ores will be in demand to work with the softer hematites from the Valley and Appalethian country. The lines of outcrop of these ores can be traced on the surface, often for miles, and horse-shoe nails have often been made in a blacksmith's forge, directly from the ore.

The Blue Ridge, one of the most interesting features in the Piedmont a

desfined to be quite inspectant, from its neutrons to the sea board. In the range miles of their length are found very extensivelepsials of throw hematite iron ore of the best classorier, giving from 0 to 6 per coid, of metallic iron in the yield of the best classorier, giving from 0 to 6 per coid, of metallic iron in the yield of the best classorier, giving from 0 to 6 per coid, of metallic iron in the yield of the per coid of a per normal product of the per coid of the pe

havigable streams, and large quantum and the streams, and large quantum and a power Charleston, the capital of West Virginia, from two to three milliou bushels of the best salt are annually manufacture 1. Bromine is made from the waste at the same point. The iron ores peculiar to the coal measures are found in all parts, and these, though yielding but 30 per cent., will undoubtedly be utilised and worked with the 60 per cent, ores of the Appalachian belt. Fire-clays are also found in the coal region, and valuable building stones are abundant, especially sandstones, having great durability and yet easily wrought, admirably adapted to the construction of extensive works. Clays for brick-making abound, as well as good building and glass-making sands.

The paper referred as fully to the agricultural and commercial resources of Virginia as to its minerals, but we have confined our selection to the portions relating to the mineral resources as being more immediately interesting to the readers of the Journal. The entire record is given in a style which cannot fail to attract attention to the subject, and Major Hotchkiss has certainly succeeded in showing that Virginia offers ample field for the profitable employment of British capital. British capital.

Coal in India.—A small quantity of coal obtained from the pits recently sunk at Sasti, near Chandah, in his Highness the Nizan's territory, has been experimented upon by the Peninsular and Oriental Company's agent at Bombay with a result that has far exceeded the most sanguine expectations. The agent, we believe, has reported that on comparing the Sasti with Newcastle coal, the consumption of the former for a given period only exceeds that of the latter by 22 per cent. in quantity: and when it is considered that the specimen experimented upon was by no means the best obtainable from the Sasti pits, and that it had for some months previous been exposed to wind and weather without any protection, the result is a highly satisfactory one. The exploring party at Warrungul have come upon an excellent seam of coal at a place called Singarenny. This coal is stated to be of a far superior quality to the Sasti crops, and will no doubt compare still more favourably with Newcastle. A specimen will shortly be sent to the Pen insular and Oriental Company's agent at Bombay, as well as to the gas company for practical experiment.—Bombay Gazette, Feb. 2.

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nent on the account days.

For-ign Government Bonds and Stocks dealt in at close market prices, either for ish or account.

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Missellaneous Shares, Stocks, and Securities dealt in for cash or account. Advisors made on all marketable stocks and shares.

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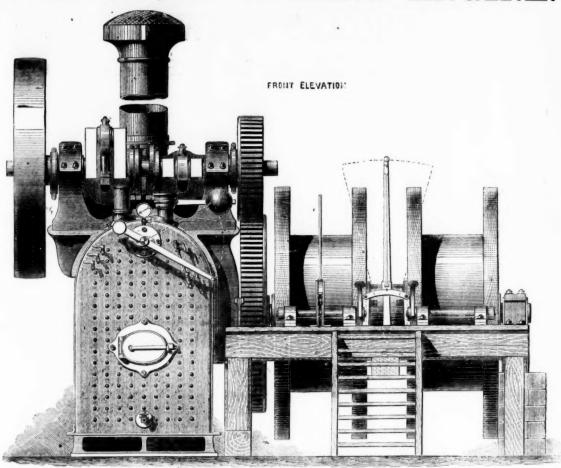
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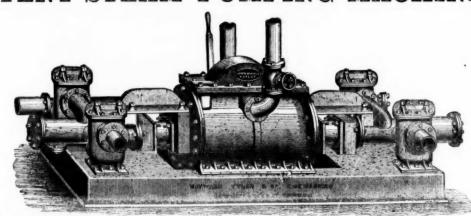
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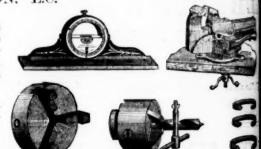
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